

A STUDY OF THE SOCIAL ADJUSTMENTS  
OF PRESCHOOL CHILDREN

45

A THESIS

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## CHAPTER I

### INTRODUCTION

The Problem.- A Study of the Social Adjustments of  
Preschool Children.

Significance of the Problem.- John Dewey has particularly emphasized the significance of social interaction and the importance of social relationships between individuals and groups. "A being connected with another being", he points out, "cannot perform his own activities without taking the activities of others into account. For they are indispensable conditions for the realization of his tendencies."<sup>1</sup> Some writers have shown that the general development of the child is greatly influenced by the adjustments which he makes to his social situations. Early adaptation to others or the regard for varied personalities is called by Faegre and Anderson a desirable social attitude which involves not only a certain feeling of independence in each member, but also a feeling of dependence or interdependence.<sup>2</sup> A few fundamental social attitudes should be instilled in every child if he is to become a well adjusted adult of society, each member of which has certain specific

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<sup>1</sup> Ethel Kavin, Children of Preschool Age, University of Chicago Press, Chicago, 1934, p. 174.

<sup>2</sup> M. L. Faegre and J. E. Anderson, Child Care and Training, University of Minnesota Press, Minneapolis, 1930, pp.5-6.

rights. The individual's habits of reacting to other persons, or to things, are being formed during the preschool age. It is well known that one's attitudes, prejudices, likes and opinions are greatly affected by the conditions of one's early years. Stern, Goodenough, Sherbon, and other child psychologists, have greatly stressed the significance of social adjustments of the preschool child, and have made extensive comments on this phase of child development in their books.

Justification of the Study.- The rapid rise of nursery schools and the growing interest in the development of the young child have increased the need for more specific data relative to the social adjustments of children of preschool age. The present problem seems to have a sufficiently wide-spread application to justify an extensive investigation.

Limitations of the Study.- The facts reported in this study are confined to observations made on thirty children, fifteen boys and fifteen girls, ranging in age from thirty-six to seventy months. The children were observed and tested in the Spelman College Nursery School, Atlanta, Georgia.

Related Studies.- During the last ten years a number of studies have been reported which contribute greatly to our knowledge of the social adjustments of preschool children. There are some outstanding contributions to that phase of social behavior in which other children or adults act as adequate stimuli in the resulting behavior.

Charlotte Bühler<sup>1</sup> studied the earliest social reactions

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<sup>1</sup>Charlotte Bühler, "The Social Behavior of Children", A Handbook of Child Psychology, edited by C. A. Murchison, Clark University Press, Worcester, 1933, p. 374

of children to each other and to adults. The subjects, 146 children, aged four months to twenty-two months, were individually observed with toys, et cetera. The following facts are significant in that they indicate the complexity of the social reactions of this particular age group:

"In the second half-year the child seeks contacts with human beings and is disappointed if not noticed. Children of four months of age look at each other and sometimes smile. Theirs is a "sight contact." After six months, children come into "touch contact" and develop "despotism and rivalry." Younger children of superior activity sometimes tyrannize over older ones who are passive."

A study has been made of the emotions of one hundred children, ranging in age from two years to six years. The precise emotional expression was inferred from the introverted or extroverted characteristics of the personality by Leslie R. Marston,<sup>1</sup> who made a study of "The Emotions of Young Children". The findings are as follows:

"(1) Rating scales were found to be reliable for measuring introversion and extroversion. (2) Sex differences were found; boys were significantly more introverted than girls. (3) No significant relationship was observed between the chronological age, mental age, height, weight, and extroversion. There was, however, a decrease in introversion, as measured by the experiments, with the increase of age, especially in girls."

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<sup>1</sup> Leslie R. Marston, "The Emotions of Young Children", The Twenty-Eighth Yearbook of the National Society for the Study of Education, Vol XIV, Public School Publishing Company, Bloomington, Illinois, 1929, pp. 606-607.



"There exist many case studies in which some evidence is given of correlation of certain general features of personalities with social attitudes. Wooley and Koehler made such case studies, but there are no general rules as to the correlation of type of social behavior."<sup>1</sup>

Arnold Gesell and Elizabeth Lord<sup>2</sup> made a psychological comparison of nursery-school children from homes of low and high economic status. The findings are as follows:

"The study points out the presence of great individual differences which can be measured early in the lives of very young children. The authors believe that it is important to recognize that differences in mental equipment probably exist from the beginning and are not all, even though they may be largely, due to training in education. In general, the children from the favored economic group outdistanced the children coming from homes of inferior economic status. There were, however, great individual differences, and in some instances high scores were made by children from the poorer group."

"One outstanding exception to this generalization occurs in the case of self-care. Children from the poorer homes did significantly better in this test. The authors suggest that it is possible that self-care depends much upon instruction, social suggestion, and motivation. Here the environmental stimulus may be greater in the poorer home."

"In many of the items studied, the situation is important, and a considerable measure of social behavior is achieved in the

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<sup>1</sup> Charlotte Buhler, op. cit., p 396.

<sup>2</sup> Arnold Gesell and Elizabeth Lord, "A Psychological Comparison of Nursery-school Children from Homes of Low and High Economic Status." The Twenty-Eighth Yearbook of the National Society for the Study of Education, Vol. XIV, Public School Publishing Company, Bloomington, Illinois, 1929, pp. 604-605.

investigation of several in the list. We select for especial notice conversation, spontaneity of speech, cooperativeness, and poise."

"In all of these, the possibility of superior advantage having been offered in the homes of more culture, leisure, and stimulation amounts to probability. The children from the favored group gave evidences of the superior cultural advantages which their social contacts afforded."

"Children from favored environments, accustomed to functions, callers whom they help entertain, and the like, probably have a training more conducive to poise and self expression than do children from a poorer cultural group."

"These possibilities, of course, will not blind the trained observer to the fact that the best cultural advantages fail to register on minds innately inferior."

It is reasonable to believe that certain childish emotional adjustments may be conditioned by a low mental age, or one might infer that a good social adjustment would be associated with a high mental age. When Leta S. Hollingworth<sup>1</sup> made the study "The Child of Very Superior Intelligence As a Special Problem in Social Adjustment." the above prognosis was not verified. The very gifted child, with the I. Q. of 130 or above, is apt to encounter many difficulties in his social adjustments, because bored by the play of children of his own chronological age, but rejected by children of his own mental age because of shy and emotional immaturity, such

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<sup>1</sup>

Leta S. Hollingworth, The Child of Very Superior Intelligence as a Special Problem in Social Adjustment, Paper Read before the First International Conference on Mental Hygiene, Washington, 1930.

a child is often thrown back upon himself and into solitary play.

"Social behavior may be considered in regard to types of temperament, intelligence, and character."<sup>1</sup> Helplessness and need, companionship in play, and common interest in some material or toy have been enumerated, so far, as causes inducing contact and group formation on the part of the child. Reininger<sup>2</sup> found that types of social behavior may be distinguished by observing types of contacts within the group; for example, the shy and uncertain child clings to the assertive. He also found other definite types; such as, the motherly or protective, despotic, dominant, and submissive attitudes. Charlotte Buhler<sup>3</sup> states that character and social attitude of a child are endangered more by other factors than by order of birth among the brothers and sisters. The social level of a child's surrounding has a particular influence on the child's social development. In an environment where no one has time or interest to instruct the child, where he is always left to himself, where he lacks the example of good manners, where he lacks intercourse and stimulation, his chances are poorer for social development than one in the opposite circumstances.

During the decade 1920-1930, nursery schools were developed in the United States because of two general trends.

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<sup>1</sup> Charlotte Buhler, op. cit., p 295.

<sup>2</sup> Ibid., p. 394.

<sup>3</sup> Ibid., pp 403, 405.

First, there was general concern that each individual be given opportunity to start life fortified with adequate emotional controls and social adjustments that may obviate many of the present difficulties in adolescent and adult life. Second, the preschool years are recognized as of more developmental importance than any succeeding period of life.<sup>1</sup>

Mary E. Walsh<sup>2</sup> describes the effects of school participation of children in the following words: "In general the nursery school children become less inhibited, more spontaneous, more socialized, develop more initiative, independence, self-assertion, and self-reliance, reveal a greater curiosity and interest in respect to the objects of their environment, and show a greater gain in the formation of orderly habits."

On the other hand, Goodenough<sup>3</sup> found that there was no relation between the length of attendance in nursery school and gain in I. Q. as measured by the Kuhlman-Binet test.

"The problem as to whether the best conditions of life for the growing child are to be found in the school or in a family group has been discussed since the eighteenth century."<sup>4</sup> Sturm<sup>5</sup> has made a special study in which she

<sup>1</sup> M. D. Davis, "Nursery Schools, Their Development and Current Practices in the United States, Bulletin, 1932, No. 9, United States Department of the Interior, Office of Education, Washington.

<sup>2</sup> Mary Elizabeth Walsh, "The Nursery School and Behavior," Social Service Monograph, Vol. 1, No. 12, 1929, p. 9, Washington.

<sup>3</sup> Florence L. Goodenough, "A Preliminary Report on the Effect of Nursery-School Training Upon the Intelligence Test-Scores of Young Children", Twenty-Seventh Yearbook of the National Society for the Study of Education, Part I, Public School Publishing Company, Bloomington, Illinois, 1928, p. 359.

<sup>4</sup> Charlotte Buhler, op. cit., p. 403

<sup>5</sup> Ibid., p. 403.

compared the number of contacts which occur between the family child and the other people in the home with the child in an institution and other people. She found the family child having a great many more such contacts.

While we would not depreciate the values of home experience, it is true that the development of personality is susceptible of intelligent direction and control. The child who achieves a wholesome personality is on the way to sound adult social adjustment. When we conceive of personality as being the dominant organization of traits and habits, we recognize the importance of the component parts of personality, whether they be called mental, physical, or emotional.<sup>1</sup> The question, "What is the value of habit for social adjustment?" was presented and, as a result, this study of the social adjustments of preschool children has been made.

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<sup>1</sup> Henry M. Busch, "Contributions of Recreation to the Development of Wholesome Personality", Recreation Magazine, Vol. 27 October, 1933, p. 307.

## CHAPTER II

### PLAN OF STUDY

Statement of the Problem.- The problem was to study the social adjustments of preschool children, and to investigate the relationship of social adjustments to age, intelligence, emotional habits, mental habits, and motor habits.

Definition of Terms.- A brief explanation of the terms used in this study will be given below.

1. Social Adjustment.- When a child learns to participate in the life of his fellows and to conform to the culture of society in which he lives, he is socially adjusted. The social adjustments of preschool children used in this study were the activities and attitudes which indicated that the children had learned to care for themselves with little dependence upon others; that they thought of themselves as one of the group and recognized the rights of others; that they were becoming the kinds of individuals who were liked and acceptable to the group; and that they solved their problems successfully.
2. Preschool Children.- In this study the term preschool children means children ranging in age from thirty-six to seventy months.
3. Age.- In this study age means the number of calendar months that the child has lived in an external environment.
4. Intelligence.- In this study intelligence means the intelligence quotient computed from the Stanford Revision of Binet-Simon Test.
5. Emotional Habits.- In this study the term emotional habits means gestures, postures,

movements of parts of the face, vocal expressions, modulations of the voice, and specific physical changes.

6. Mental Habits.- In this study the term mental habits refers to the activities which reflected a high degree of perception, association, memory, imagination, and language comprehension.
7. Motor Habits.- In this study the term motor habits refers to the control and coordination of the body.

Subjects of the Study.- The thirty children upon whom this study was based were three, four, and five years of age, with five girls and five boys in each age group. No child, who was more than sixty-eight months of age, or less than thirty-six months of age, at the beginning of the observations, was selected for the study. A definite effort was made to study each child on or near his birth date.

General information, regarding the social history of the children, was obtained by the director of the nursery school, usually from the mother, in a personal interview at the time application was made to enter the child in the nursery school. A social history outline is used which includes the following points: the number of children in the family; the position of the child among the other children; the paternal education and the paternal occupation. Thus, it will be seen that the social data for each child is objective.

The paternal occupation and paternal education of the children included in the study ranged from very poor to very high, but in general would be considered the average. Table I, pages 11 and 12, shows a summary of the social history of

TABLE I  
SUMMARY OF SOCIAL HISTORY

| A. - Paternal Occupation Distribution                                    | N  |
|--|----|
| Professional (minister, physician, etc.)                                 | 6  |
| Teachers. . . . .  | 4  |
| Business owners or managers . . . . .                                    | 4  |
| Saleswork (insurance salesman, newspaper<br>representatives, etc.) . . . | 4  |
| Skilled labor (postal clerks, electrician,<br>etc.) . . . . .            | 4  |
| Semi-skilled (truck-driver, chauffeur,<br>etc.) . . . . .                | 3  |
| Unskilled labor. . . . .   | 5  |
| TOTAL . . . . .  | 30 |

| B.- Paternal Education Distribution | N  |
|-------------------------------------|----|
| Masters and above. . . . .          | 7  |
| College . . . . .                   | 14 |
| High school. . . . .                | 6  |
| Junior high and below. . . . .      | 3  |
| TOTAL . . . . .                     | 30 |



TABLE I (continued)  
SUMMARY OF SOCIAL HISTORY

| C. - Number of Children in Family | N  |
|-----------------------------------|----|
| One child in family.....          | 11 |
| Two children in family.....       | 13 |
| Three children in family.....     | 5  |
| Four children in family.....      | 1  |
| Total.....                        | 30 |

| D. - Place of Child in Family | N  |
|-------------------------------|----|
| First child in family.....    | 7  |
| Second child in family.....   | 14 |
| Third child in family.....    | 6  |
| Fourth child in family.....   | 3  |
| Total.....                    | 30 |

the whole group. In home backgrounds there is a reasonable amount of homogeneity.

The intelligence of the children studied was measured with the Stanford Revision of the Binet-Simon Test. The average I. Q. of 116.6 for the children of this study was, on the whole, above the average ability.<sup>1</sup> The fifteen girls had an average I. Q. of 115.5. The fifteen boys had an average I. Q. of 111.1. The average I. Q. was 113.5 at three years, 122 at four years, and 116 at five years. At the age group levels there are both average and superior children. All tests were given at the Spelman Nursery School. The same person gave all the tests. Only one child in the group deviates from the norm physically and he had an I. Q. of 111. This child has a speech impediment.

Setting of the Study.— The study is supported by the observed and recorded acts of children in the nursery school. The children were selected with reference to chronological age. The program of the Spelman Nursery School presented a variety of material and provided a multiplicity of stimuli to which each child in the study could react.

Each child was observed during the following periods:

|               |                                  |
|---------------|----------------------------------|
| 8:00 - 10:00  | Constructive play and free play. |
| 10:00 - 11:00 | Lunch and special activities.    |
| 11:00 - 12:00 | Play, table setting and rest.    |
| 12:00 - 1:00  | Dinner and bathroom time.        |
| 1:00 - 2:15   | Sleep and orange juice time.     |
| 2:15 - 3:00   | Play.                            |

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<sup>1</sup> Bird T. Baldwin and Lorle Stecher, The Psychology of the Preschool Child, D. Appleton and Company, New York, 1927, p. 57.

The Method of Procedure.- The method of collecting the data included the observations as recorded in individual diaries. Each child's activities, reactions, and habits were observed and recorded in a diary record for a total of six hours. The observations were made in December, January, February and March. The diaries were required in order that evidence of the children's activities, not affected by recall would be obtained and used for scoring the "Inventory". Sample diary records from this study are listed for a three, a four, and a five year old child.<sup>1</sup>

Ruth Andrus<sup>2</sup> "Inventory" with its rating scale<sup>3</sup> was used for scoring the emotional, mental, motor, and social-moral phases of each child's development. There was a list of activities, habits, and reactions in the "Inventory". Some of the specific items of the different divisions of the "Inventory", have been included in the study in Table VIII.<sup>4</sup>

The general directions for scoring the "Inventory" made it possible to secure comparable scores for each division of the "Inventory" for children observed in different situations. All questions were answered with one of the following scores:<sup>5</sup>

If the child took advantage of the situation  
three or more times, the "Inventory" question

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<sup>1</sup> See Appendix B, page 74.

<sup>2</sup> Ruth Andrus, An Inventory of the Habits of Children from Two to Five Years of Age, Teachers College, Columbia University, New York City, 1928, pp. 1-51.

<sup>3</sup> Ibid., pp. 31-35.

<sup>4</sup> See Appendix, A, page 45.

<sup>5</sup> Ruth Andrus, loc. cit., p. 13.

was scored 3.

If the child took advantage of the situation twice, the "Inventory" question was scored 2.

If the child took advantage of the situation once, the "Inventory" question was scored 1.

If the child never took advantage of the situation, the "Inventory" question was scored 0.

If the situation was not recorded in the diary record, the question was scored X.

The final score for each division, emotional, mental, motor, and social-moral, was computed by the use of the following formula:<sup>1</sup>

"Let  $T$  be the total score for each division obtained by adding the answers to the questions. Let  $S$  be the maximum score for each division. Let  $X \times 3$  be the total number of situations which do not exist. Then,  $\frac{T}{S - 3X} \times 100 =$  the final score for the child in each division."

A sample score sheet is shown in part .<sup>2</sup>

Two inventories were scored for each child in order that a reliable score might be obtained. The questions in the first inventory used were scored positively or negatively according to the presence or absence of the habits. The teachers in the nursery school checked the inventories on the basis of their observations and records on the same child during the same

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<sup>1</sup> Ruth Andrus, op. cit., 13.

<sup>2</sup> See Appendix C , page 81.

observational period.

The "Inventory" was examined carefully and all of the questions which indicated lack of good social adjustment were omitted. The final itemized list of questions which were scored in an attempt to measure the habit status of the children used in this study, in habits that showed good social adjustment, are listed in Table VIII, page 45. The "Inventory" as used included the following questions:<sup>1</sup>

Emotional Behavior, 1-18, 22-29, 34-61, and  
71-83.

Mental Behavior, (all the questions in  
the "Inventory" were  
scored.)

Motor Behavior, 1-54, and 59-288.

Social-Moral, 2, 4-7, and 9-72."

These selected questions were scored positively and negatively on the basis of the observations as recorded in the diaries.

Limitations of the Data:- The method used implies that qualitative differences of personality and behavior may be measured quantitatively. Ruth Andrus<sup>2</sup> states that there are no standards for growth, and that we cannot set up even tentative levels of development, of emotional and social-moral development.

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<sup>1</sup>See Appendix A, page 45.

<sup>2</sup>Ruth Andrus, op. cit., pp. 17-18.

### CHAPTER III

#### ANALYSIS OF THE DATA

##### Social Adjustments as Measured by the Social-Moral Habits.-

It was recognized that social adjustment was learned when appropriate responses were made by a child in a social situation.<sup>1</sup>

Social adjustments of the children used in this study were determined by using the social-moral division of the "Inventory".<sup>2</sup> Observations of the social-moral habits gave a general insight into the social behavior of each child; therefore, the terms social adjustments, social-moral habits, and social behavior are used interchangeably in this study. Social behavior was observed when two or more children played together either with cooperation, or with no cooperation.

Significance of the Correlations.- The correlations show that some relationship exists between social behavior and the ages, intelligence quotients, emotional habits, mental habits, and motor habits. No attempt has been made to measure the exact degree of relationship. The correlations cannot be used for purposes of prediction.

For the purpose of testing the relationship of social adjustments to age, intelligence, emotional habits, mental

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<sup>1</sup> J. E. Wallace Wallin, Personality, Maladjustments, and Mental Hygiene, McGraw-Hill, New York, 1935, p. 207.

<sup>2</sup> Ruth Andrus, op. cit., p.49-51.

habits, and motor habits, Spearman's<sup>1</sup> formula for correlation from ranks was used in this study. Rugg<sup>2</sup> says that this method is satisfactory for testing relationship when the number of related items is small.

Before definitely deciding to use Spearman's rank formula, the correlation between the social behavior and the intelligence quotients of the boys and girls in the three year olds group was computed by the Pearson's<sup>3</sup> product-deviation method. The correlation was .774, which is almost identical with correlation .775 by the Spearman's rank formula.

The significance of correlations in this study does not depend upon the amount of the probable variation because the children used were a selected group.

Six methods were used for grouping the social behavior scores, as indicated in the social-moral habits, the ages, the intelligence quotients, the total scores from emotional habits, mental habits, and motor habits, when the relationships were computed; namely,

1. Boys and girls in the separate age groups.
2. Boys in the separate age groups.
3. Girls in the separate age groups.
4. Boys in the whole group.
5. Girls in the whole group.
6. Boys and girls in the whole group.

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<sup>1</sup> Robert E. Chaddock, Principles and Methods of Statistics, Houghton Mifflin Company, Boston, 1925, p. 300.

<sup>2</sup> H. O. Rugg, Statistical Methods Applied to Education, Houghton Mifflin Company, Boston, 1917, p. 291.

<sup>3</sup> Ibid., p. 293.

The correlations found from scores on all the questions in the "Inventory"<sup>1</sup> are given in Tables II-A to VII -A, pages 77-79. In the explanations made on these correlations, they are referred to as correlations-A in this study.

The correlations found from scores on all the questions which indicate social adjustment as listed in Table VIII, p. 45, are referred to as correlations-B in this study and are shown in Tables II-B to VII -B, pages 33-39.

The following interpretations, as given by Rugg<sup>2</sup>, have been used throughout this study:

- \* 1.  $r =$  less than .15, association is "indifferent" or "negligible."
2.  $r =$  .15 and less than .35, association is present but low.
3.  $r =$  .35 and less than .60, association is marked.
4.  $r =$  .60 and less than .70, association is high.
5.  $r =$  .70 and above, association is very high."

Social Adjustment as Related to Age.- Evidence that there is some relation between social behavior and age of the children used in this study is shown in Tables II-A to VII -A and Tables II -B to VII -B, pages 33-39. The correlation-A between social behavior and the age for the three-year olds group is -.66. This indicates that there is a decrease in the relative position of social behavior to age. This same tendency is noted

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<sup>1</sup> Ruth Andrus, op. cit., pp. 37-51.

<sup>2</sup> H. O. Rugg, op. cit., p 256.



in correlation-B, which is  $-.51$ . The correlation-A of  $-.31$  for the boys of this three-year old group shows that the connection is relegated to the boys of a younger age group and correlation-B emphasizes this tendency, since it is  $-.61$  for the three year old boys used in this study.

Turning to the correlation-A for the girls of the three year old group, which is  $-.81$ , the tendency for association is observed to be very high and the correlation-B  $.20$  shows that there is practically no affect of age on the social adjustments at this age. The tendency for the association to decrease must have been affected by the age of these girls.

The four-year old whole group showed a correlation-A of  $.50$ . The age of this group evidently had something to do with the social behavior observed.

The four-year old group showed a correlation-B of  $-.51$ . This is identical with correlation-B for the whole group of three year olds. Since the correlation-B of the five-year group shows the same relationship, the children studied are evidently making their social adjustments irrespective of their immaturity as indicated by their ages.

The four-year old group of boys had a correlation-A of  $-.05$ . This might be an indication of a connection between social behavior and age of the children in this group that might be called negligible. On the other hand the age and the social adjustments of these four-year old boys are not closely allied, since correlation-B is  $.10$ .

The correlation-A between social behavior and age of the girls in the four-year group is .44. This indicates that the age of these girls was related to a marked extent to the social behavior observed. The correlation-B .13 shows that the relationship of social adjustments to age is present, but low.

The correlation-B between the social behavior and age of the whole five-year group was discussed in a comparison of the correlations for the three-year and four-year old groups. It is -.31. The correlation-A for this group is .26. Evidently the social behavior of the children studied was not closely related to their ages at the time of observation.

The social behavior and the ages of the five-year old boys showed a high relationship, since the correlation-A is .69. There is a big drop in the connection between these characteristics, as indicated by correlation-B -.10. There is an indication that the little association there was decreased as these boys grew to this age. In other words the social adjustments made by them might have been made at an earlier age level and as these boys grow older their social adjustments will probably be made with no idea that they are "too young to do this thing and the other."

The five-year old group of girls showed a correlation-A of .20 which pointed to the tendency of some independence of the social behavior from the age. In fact there was as much dependency as the three year old girls showed in making their social adjustments. The correlation-B for the five-year girls is -.31. These five-year old girls studied have shown that

their social adjustments were made almost irrespective of their ages. The correlations-B of the three-year olds is .20, of the four-year olds is .13, which further brought to the attention the decrease in the relationship among the girls used in this study of social adjustments observed and the ages.

The correlation-A between social behavior and ages of the boys in the whole group is .46; the correlation-B is .20. The social behavior observed was more dependent upon the ages of the children observed than the social adjustments that were observed.

The correlation-A between social behavior and ages of the girls of the whole group is .98. This is directly opposed to the indications given by a correlation-A of  $-.81$ . Both are showing approximately the same type of relationship, except correlation-B indicates that the very high relationship probably exists in girls of a lower age level.

It might be finally noted that the four-year old boys showed the same type of very high relationship between the social adjustments made and their ages.

There is a marked relationship between social adjustment and age for girls in the whole group, but there seemed to have been very little relationship for boys and for the whole group of children studied. The results of this study show that age was not a determining factor in the social adjustments observed. This conclusion supports the general hypothesis that as a child increases in age other

factors are more important than age in the making of social adjustments.

Social Adjustments as Related to Intelligence.- The three-year old group's correlation between social behavior and intelligence is .77. The correlation-B is .21. The relationship is vastly higher in the former than in the latter.

The correlation-A for the boys of the three-year old group is .41, as regards their social behavior and their intelligence, while correlation-B for the same group is .71. The relationship between the social behavior and intelligence is noticeably present, but the latter correlation shows a very marked association between social adjustments made and intelligence. This is an illustration of intelligence going along hand in hand with the social adjustments made by this group of three-year old boys.

The three-year old girls showed a higher correlation in their social behavior and their intelligence than the boys, since the correlation-A is .86. The correlation-B -.20 indicates that the relationship of the social adjustments made to intelligence was very low and would possibly be observed to a certain extent in younger children.

The four-year old group showed a low relationship in correlation of social behavior to intelligence. The correlation-A is .28. The same association is shown in correlation-B which is .34.

The boys of the four-year old group had the correlation-A of  $-.08$ , which means that there was practically no association between the social behavior observed and their intelligence. The correlation-B  $.61$  showed that their intelligence had a bearing of some extent upon the social adjustments made.

The five-year old group studied had a correlation-A of  $-.12$ . This is very low and shows that the social behavior was almost independent of the intelligence for this group. The correlation-B of  $.34$  shows more association than the former.

The correlation-A  $.07$  of boys of the five-year old group used in this study shows that there is very little relationship between social behavior observed and their intelligence. The correlation-B is  $.71$ . This shows that there is probably a closer association at a younger age level.

The girls of the five-year old group used in this study showed the same type of correlation as the five-year old boys. The correlation is  $-.51$ . On the other hand the correlation  $.71$  is exactly the opposite to that observed in the social behavior and intelligence of the boys. There is a decided relationship which is present in the high association of social adjustments to intelligence for the girls in this group.

The girls in the whole group showed a decided relationship between social behavior and intelligence, the correlation-A being  $.75$ . The association between social adjustments and intelligence is indicated in the correlation-B.  $.31$ . This

is a little less than marked but is very decidedly present in these particular girls of this age group.

The boys of the whole group show the type of relationship as correlation-A given above, for the girls. It is .50, and remains almost constant for correlation-B which is .53.

The correlation-A of .36 and correlation-B which is .41 showed the existence of a marked association between social behavior and intelligence.

While the results of this study indicate a marked relationship between I. Q. and social adjustments the fact that the I. Q's of the children of this group were so far above the average may have influenced this coefficient of correlation; therefore, the relationship cannot be judged as being conclusive.

Social Adjustments as Related to Emotional Habits.- The boys and girls in the three-year olds age group showed little relation between the social behavior observed and the emotional habits. The correlation-A is .33; the correlation-B is .21. The boys in the three-year age group showed very little relationship between their social behavior and their emotional habits. The correlations-A and B are -.10 and .46 respectively. The boys showed the same type of marked association as the girls of this age group. Their correlation-A is .69. The correlation-B between the social behavior score and the emotional habits is .90. This is a positively high relationship.

The boys and girls of the four-year age group showed the correlation -.01, whereas correlation-B is .47. This relationship is marked.

The boys of the four-year old age group showed  $-.10$  for the correlation. Correlation-B is 0. There is no relationship between the social adjustments made and the emotional habits observed.

The boys of the whole group show a correlation-A of  $.10$ , whereas the correlation-B between social behavior and emotional habits is  $.71$ . Then the latter correlation contradicts the indications of the former. Two extreme relationships are shown; namely, high and low.

The girls of the whole group show very high association of social behavior to emotional habits. The correlation-A is  $.91$  and the correlation-B of  $.41$  indicates marked influence of emotional habits on social adjustments.

The correlation-A of social behavior and emotional habits is  $.20$  and <sup>the</sup> correlation-B is  $.40$ . The influence of emotion indicates that the interrelation is small and could be observed in younger children. Correlation-B is  $.46$ . This correlation of the social behavior and social adjustments is marked for these four-year old boys.

In the correlation  $.08$  there is little association between scores from social behavior and habits. This correlation is  $.90$  for the girls.

The boys and girls of the five-year old group showed a correlation of  $.68$ . This shows that the emotional habits are important factors in the social adjustments that are made by the children of this age group. Correlation-B is  $.35$ . The drop is evidently due to the fact that one boy in this group

had a total score for emotional behavior that was very much lower than the average score for the group on emotional habits that indicate social adjustment.

The girls of the five-year old group showed a correlation of .20 which is an indication of very little influence of emotional habits upon social adjustments made.

The evidence of relationship between the social adjustments of the children used in this study and their emotional habits is clearly recognizable. The presence of one indicated the presence of the other. No attempt is being made to say that to know the value of making social adjustments is to know what the value of the emotional habits would be. The evidence does not enable one to say that for a given change in the emotional habits any particular changes should be expected, on the average, in the social adjustments.

Social Adjustment as Measured by Mental Habits.- The correlations-A and-B for the boys and girls in the three-year old group show a relationship that is small. These are .26 and .10. They indicate that mental habits for the children studied in this age group did not exert much influence upon the resulting social adjustments observed.

The same tendency is shown in the correlation for the boys and girls of the four-year old group. They are .15 and .03.

The boys of the three-year group are not affected in their social behavior made by their mental habits. The correlation-A is 0. In the older boys and girls studied,



the influence of mental habits upon social adjustments is observed to be greater. Evidence is seen in the correlations of social behavior for the five-year old boys and girls (correlation-B is .65; for the boys of the five-year old group correlation-A is .49, and correlation-B is .90) of the influence of the mental habits upon social adjustments. The girls of the three-year olds age group showed the correlation .41, which is an indication of the trend discussed above, that is, that social adjustments are affected in some degree by the mental habits.

The girls of the three-year group have a correlation-B of .31, those in the four-year group have .51, and those of the five-year old group have .61. There is some increase of the influence of mental behavior on social adjustments made by the girls of this study.

The four-year old group shows little evidence in the correlation-A .28 of the effect of mental habits on social adjustments. The five-year old age group showed the same trend as indicated by the correlation-A .15. For the five-year old group, there is scarcely any influence of the mental habits upon the social behavior. The same low association is noted in correlation-A for the four-year boys, which is -.22. The boys of the five-year and four-year old groups have grown away from this influence of mental habits upon social behavior.

The correlation of .09 between the social behavior and the mental habits for the five-year old boys and girls

indicates that there was a strong tendency for the social adjustments to be made independently of the mental habits.

At an earlier age, the four-year olds and the five-year olds must have been affected in social behavior by their mental habits since the correlations-A and-B are  $-.17$  and  $-.41$ . It would appear from this latter figure that the social behavior of younger children is more dependent upon their mental habits than are <sup>the</sup> children at these ages.

On the other hand their social adjustments are intimately connected with their mental habits. This is true for the fifteen boys, as was indicated in the correlations-A and-B of  $.53$  and  $.41$  respectively.

The girls show the same trend, since the correlation for the whole group was  $.47$ , but the relationship is almost insignificant in the social adjustments made.

The correlations-A and-B  $.57$  and  $.41$  for the whole group furnish additional information of the influence of the mental habits upon the social behavior observed.

There is a significant relationship between the social adjustments and the mental habits of the children observed in this study. The mental habits of the boys of the whole group had a slightly higher effect upon the social adjustments which they made than did the mental habits of the girls of the whole group. The relationship of the mental habits observed to the habits which indicated social adjustment for the five-year old group was very much higher than that for the three-year and

four-year olds. It is quite possible that the fact, that no relationship existed between the social behavior and the mental habits of the three-year old boys, accounts for the drop for the whole three-year old group. The results show that the mental habits of the three-year old girls affected the social adjustments which they made to a marked extent, a tendency indicated in the relationship shown by the mental habits of the four-year old boys and girls. This generalization would probably indicate that the influence of one upon the other would have to be considered and that the mental habits observed had a greater influence upon the social adjustments made by the older children than those made by the younger children studied.

Social Adjustments as Related to Motor Habits.- There was a strong tendency for the motor habits of the three-year and four-year old boys to aid them in making better social adjustments when their motor coordination had shown advanced development. This is not true for the whole group of three and four-year olds, since their correlations-A and-B are .19, .10, .39 and .02 respectively. The correlations for the boys in the age groups three-year and four-year olds are .71 and .61, respectively. The two factors are very closely related. Now the correlations-A and-B for the five year old boys are -.61 and .38. This further emphasizes the evidence that the motor habits for the younger boys greatly affect social adjustments. Additional emphasis upon this fact is indicated by the correlations for the whole group of five-year

olds, which is 0.49. The correlation-B of .43 supports the hypothesis that the social adjustments of preschool children are affected by their motor habits for the girls as it was for the boys.

The correlations for the whole group of boys are .58 and .31. The relationship is as persistently significant for this group as it is for the whole group of thirty children studied since the correlations are .61 and .25.

The results show that the motor habits of the children used in this study were one of the conditioning factors in the resulting social adjustments which the children made. This relationship is not very significant, though it is present for the children in the whole group. In fact, the results for the girls of the whole group show that this relation might be found in children of a young age group. On the other hand, the relationship between the social adjustments made by the boys of the whole group was quite marked. The association of the four-year olds' social adjustments to their motor habits is marked. The four-year olds studied showed that there was a higher relationship of their intelligence and emotional habits to social adjustments than of their motor habits to the social adjustments which they made during the periods of observation. It is quite possible that the little dependence shown in the relationship of social adjustments to motor habits is due to the fact that many of the children of that particular age group were studied for the greater

part of the time while in an in-door situation. The three-year and four-year boys probably depended more upon their motor habits than upon any other factor when making social adjustments. The four-year old girls depended more upon their motor habits for making social adjustments than did either of the other two groups studied.

TABLE II

The Correlations of Social Adjustments and Age, Intelligence, Emotional Habits, Mental Habits, and Motor Habits of Boys and Girls in Separate Age Groups

A. Correlations from Scores on All the Questions in the "Inventory"<sup>1</sup>

| Age in Years | No. | Correlation with C. A. | Correlation with I. Q. | Correlation with Emotional Habits | Correlation with Mental Habits | Correlation with Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 10  | -.6676                 | .7750                  | .3335                             | .2611                          | .1986                         |
| 4            | 10  | .5075                  | .2818                  | -.0105                            | .1569                          | .3935                         |
| 5            | 10  | .2611                  | -.1256                 | .6873                             | .0942                          | -.4973                        |

<sup>1</sup> Ruth Andrus, op. cit., pp. 37-51.

B. Correlations From Scores on Habits Which Indicate Social Adjustment.<sup>1</sup>

| Age in Years | No. | Correlation with C. A. | Correlation with I. Q. | Correlation with Emotional Habits | Correlation with Mental Habits | Correlation with Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 10  | -.5176                 | .2195                  | .2195                             | .1047                          | .1047                         |
| 4            | 10  | -.5176                 | .3439                  | .4771                             | .0314                          | .0209                         |
| 5            | 10  | -.3129                 | -.7167                 | .3542                             | .6577                          | .4363                         |

<sup>1</sup> See Appendix A, p. 45.

TABLE III

The Correlations of Social Adjustments and Age, Intelligence, Emotional Habits, Mental Habits and Motor Habits of Boys in Separate Age Groups.

A. From Scores on all the Questions Given in the "Inventory"<sup>1</sup>

| Age In Years | No. | Correlation With C. A. | Correlation With I. Q. | Correlation With Emotional Habits | Correlation With Mental Habits | Correlation With Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 5   | -.3129                 | .4158                  | -.1047                            | r = 0                          | .7167                         |
| 4            | 5   | -.0524                 | -.0838                 | -.2299                            | -.2299                         | .6180                         |
| 5            | 5   | .6971                  | -.0733                 | -.1047                            | .4973                          | -.6180                        |

<sup>1</sup>Ruth Andrus, op. cit., pp. 37-51.

B. Correlation from Scores on Habits which Indicate Social Adjustments as Given in Table VIII, p. 45.

| Age In Years | No. | Correlation With C. A. | Correlation With I. Q. | Correlation With Emotional Habits | Correlation With Mental Habits | Correlation With Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 5   | -.6180                 | .7167                  | .4669                             | -.5176                         | .6180                         |
| 4            | 5   | .0980                  | .6180                  | .6971                             | -.4158                         | .6180                         |
| 5            | 5   | -.1047                 | .7167                  | .4158                             | .9080                          | .3850                         |

TABLE IV

The Correlations of Social Adjustments and Age, Intelligence, Emotional Habits, Mental Habits and Motor Habits of Girls in Separate Age Groups.

A. Correlations from Scores on all the Questions in the "Inventory"<sup>1</sup>

| Age in Years | No. | Correlation with C. A. | Correlation with I. Q. | Correlation with Emotional Habits | Correlation with Mental Habits | Correlation with Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 5   | -.8135                 | .8610                  | .6971                             | .4158                          | -.1047                        |
| 4            | 5   | .4465                  | -.1047                 | .0838                             | -.1778                         | .4973                         |
| 5            | 5   | .2091                  | -.5176                 | .2091                             | -.4158                         | -.9080                        |

B. Correlation from Scores on Habits which Indicate Social Adjustments as Given in Table VIII, p. 45.

| Age in Years | No. | Correlation with C. A. | Correlation with I. Q. | Correlation with Emotional Habits | Correlation with Mental Habits | Correlation with Motor Habits |
|--------------|-----|------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3            | 5   | .2091                  | -.2091                 | .1047                             | .3129                          | .3129                         |
| 4            | 5   | .1360                  | -.3129                 | .9080                             | .3176                          | .4158                         |
| 5            | 5   | -.3129                 | .7167                  | 0                                 | .6189                          | .8135                         |



TABLE V

The Correlation of Social Adjustments and Age, Intelligence, Emotional Habits, Mental Habits and Motor Habits of Boys in The Whole Group

A. Correlations from Scores on all the Questions in the "Inventory"<sup>1</sup>

| Age In Years | No. | Correla-<br>tion With<br>C. A. | Correlation<br>With I.Q. | Correla-<br>tion With<br>Emotional<br>Habits | Correlation<br>With Mental<br>Habits | Correlation<br>With Motor<br>Habits |
|--------------|-----|--------------------------------|--------------------------|--|--------------------------------------|-------------------------------------|
| 3-5          | 15  | .4669                          | .5075                    | .1047  | .5378                                | .5881                               |

<sup>1</sup> Ruth Andrus, op. cit., pp. 37-51.

B. Correlations from Scores on Habits which Indicate Social Adjustment.<sup>1</sup>

| Ages In Years | No | Correlation<br>With C.A. | Correla-<br>tion with<br>I.Q. | Correla-<br>tion with<br>Emotional<br>Habits | Correlation<br>With Men-<br>tal Habits | Correlation<br>With Motor<br>Habits |
|---------------|----|--------------------------|-------------------------------|--|--|-------------------------------------|
| 3-5           | 15 | .2091                    | .5378                         | .7167  | .4158                                  | .3129                               |

<sup>1</sup> Appendix A, p. 45.

TABLE VI.

The Correlations of Social Adjustments and. Age, Intelligence, Emotional Habits, Mental Habits, and Motor Habits of Girls in The Whole Group

## A. Correlations from Scores on All the Questions in the "Inventory"

| Age In Years | No. | Correlation With C.A. | Correlation With I.Q. | Correlation With Emotional Habits | Correlation With Mental Habits | Correlation With Motor Habits |
|--------------|-----|-----------------------|-----------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3-5          | 15  | .9818                 | .7557                 | .9173                             | .4771                          | .4465                         |

<sup>1</sup> Ruth Andrus, op. cit., pp 37-51.

B. Correlations from Scores on Habits which Indicate Social Adjustment<sup>1</sup>

| Age In Years | No. | Correlation With C.A. | Correlation With I.Q. | Correlation With Emotional Habits | Correlation With Mental Habits | Correlation With Motor Habits |
|--------------|-----|-----------------------|-----------------------|-----------------------------------|--------------------------------|-------------------------------|
| 3-5          | 15  | -.8135                | .3129                 | .4158                             | -.1047                         | -.2091                        |

<sup>1</sup> See Appendix A, p. 45.

TABLE VII

The Correlations of Social Adjustments and Age, Intelligence, Emotional Habits, Mental Habits, and Motor Habits of Boys and Girls in the Whole Group

A. Correlations from Scores on All the Questions in the "Inventory"

| Age<br>in<br>Months | No. | Correlation<br>With C. A. | Correla-<br>tion With<br>I. Q. | Correla-<br>tion With<br>Emotional<br>Habits | Correlation<br>With Men-<br>tal Habits | Correlation<br>With Motor<br>Habits |
|---------------------|-----|---------------------------|--------------------------------|--|--|-------------------------------------|
| 37-70               | 30  | .6280                     | .3645                          | .2091  | .5781                                  | .6180                               |

<sup>1</sup> Ruth Andrus, op. cit., pp. 37 -51

B. Correlations from Scores on Habits Which Indicate Social Adjustment.

| Age<br>in<br>Months | No. | Correlation<br>With C.A. | Correla-<br>tion<br>With I.Q. | Correla-<br>tion With<br>Emotional<br>Habits | Correlation<br>With Mental<br>Habits | Correlation<br>With Motor<br>Habits |
|---------------------|-----|--------------------------|-------------------------------|--|--------------------------------------|-------------------------------------|
| 37-70               | 30  | -.2091                   | .4158                         | .4056  | .4158                                | .2507                               |

<sup>1</sup> See Appendix, A, p. 45.

## CHAPTER IV

### SUMMARY AND CONCLUSION

The present study has attempted to analyze the social adjustments of preschool children. The following relationships were investigated:

1. Social adjustments as related to age.
2. Social adjustments as related to I. Q.
3. Social adjustments as related to emotional habits.
4. Social adjustments as related to mental habits.
5. Social adjustments as related to motor habits.

The data used as a basis for this study were the observations as recorded in the diary records, for a total of six hours, of the activities, responses and reactions, of thirty children while in the nursery school environment. The study was made at the Spelman Nursery School, in Atlanta, Georgia.

The validity of the conclusions depends upon the following facts:

1. The inventories used for scoring the data were checked by the teachers of the nursery school.

2. The "Inventory"<sup>1</sup> used is an instrument which makes it possible to record objective data on the development of habits of children from two to five years of age.
3. A sufficient length of time was used for observing each child, in order that a large and representative sample of the habits might be recorded.
4. The consistency of each child's habits was noted when checking the diary records of other children in the study, although this evidence did not contribute to the total scores for the individual child whose scores were not being checked at that time.

The subjects of the experiment ranged from thirty-six to seventy months of age, ten at each age level. The children were all observed within two months of the age at which they were classified. All of the children were selected on the basis of their chronological ages. An attempt was made to study each child on or as near as possible to his birthdate. The sexes were evenly divided.

The children were a highly selected, comparable group, as is indicated by a mean I. Q. of 116.6. These children are representative of the low, average, and high paternal occupation and paternal education levels. Most of the children studied were only children or last children of families where there were two or three other children. In one instance, one child was a member of a family of four children. This particular child did not show any observable advantage or disadvantage, in making social adjustments, with respect to other

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<sup>1</sup> Ruth Andrus, op. cit., 37.

children used in the study.

The social adjustments of the children used in this study were measured by their social-moral habits. The method of analysis was one of many correlations, since one of the main purposes of the study was to show the relationship of social adjustments to age, intelligence, emotional habits, mental habits, and motor habits. Spearman's<sup>1</sup> rank formula for correlation was used. Each of the above analyses was studied in relation to chronological age, sex, and intelligence.

The analysis according to chronological age shows the following results:

The social adjustments of the three-year olds are affected more by their intelligence than by any other factor studied. There is an indication of a little association between the social adjustments made and the emotional habits. The social adjustments are not significantly affected by the mental and motor habits. The marked relationship between chronological age and social adjustment is in the opposite direction, and indicates that as the child matures there might be a decrease in the connection between their social adjustments and their ages.

The four-year olds showed a marked relationship between their ages and the social adjustments made. The relationship of motor habits to the social adjustments at this age level is second to age. The intelligence, mental, and emotional habits showed an insignificant influence on the social adjustments made by this group. The relationship between social

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<sup>1</sup> H. O. Rugg, op. cit., p. 293.

adjustments and the emotional habits dropped and showed that at an earlier age level the connection might be observed more so than at this particular age level.

The five-year olds showed that the closest relationship existed between mental habits and social adjustments as compared with the other determining factors. This relationship is very marked. The motor and emotional habits take second and third place respectively. The relationship between intelligence and social adjustments is very high, but in the opposite direction.

Age was not a significant factor in the determination of the social adjustments for the groups studied. This finding is in agreement with the conclusions of Ethel Kavin.<sup>1</sup>

The analysis according to sex shows the following results:

The relationship of the ages of the girls to social adjustments was significantly higher than that for the boys.

The relationship of intelligence to social adjustments made by the boys is marked; however, it is significantly high for girls when based on the correlations of scores from the "Inventory"<sup>2</sup> and low when based on the correlations from the scores in Table VIII.<sup>3</sup> The indications are that social adjustments are influenced more by other factors than by intelligence.

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<sup>1</sup> Ethel Kavin, op. cit., p 259.

<sup>2</sup> Ruth Andrus, op. cit., pp. 37-51.

<sup>3</sup> See Appendix A , p. 45.

The social adjustments of the girls showed are less closely related to their emotional habits than the social adjustments of the boys.

As the relationship of social adjustments to mental habits and motor habits is marked for the boys and for the girls, there seems to be little sex differences shown in the relations of these two factors to social adjustments.

The analysis according to intelligence shows the following results:

The intelligence of the three-year old children showed a very high relationship to their social adjustments. This is significant because the only two low I. Q. scores were for children in this group. Ethel Kavin<sup>1</sup> observed that intelligence does not increase the chances for good social adjustments.

Whether a child is socially adjusted or not depends upon many factors, in as much as the relationships of the social adjustments of the preschool children observed in this study to age, intelligence, emotional, habits, mental habits, and motor habits were significant. Definite relationships have been found by Gesell and Buhler<sup>2</sup> between the various factors in the child's own life and in his life situation. It is unlikely that one could conclude that any one factor caused the social adjustments that were observed.

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<sup>1</sup> Ethel Kavin, op. cit., 263

<sup>2</sup> Ibid., p 264



## APPENDIX

# APPENDIX A

TABLE VIII  
FREQUENCY DISTRIBUTION OF HABITS WHICH INDICATE  
SOCIAL ADJUSTMENT

| Emotional Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| Does the child   |                    |       |                   |       |                   |       |
| 1. Come to school willingly?                                 | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 2. Show contentment and<br>cheerfulness?                     | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 3. Show enjoyment of activity?                               | 4                  | 5     | 4                 | 3     | 5                 | 5     |
| 4. Laugh from sheer pleasure?                                | 5                  | 5     | 5                 | 4     | 1                 | 2     |
| 5. Laugh at happenings?                                      | 5                  | 4     | 5                 | 4     | 4                 | 5     |
| 6. Laugh upon hearing a story?                               | 3                  | 1     | 3                 | 3     | 2                 | 4     |
| 7. See humor in funny situations?                            | 4                  | 3     | 4                 | 4     | 5                 | 5     |
| 8. Work or play cheerfully?                                  | 5                  | 5     | 5                 | 2     | 5                 | 5     |
| 9. Enjoyment and interest in<br>activities engaged in alone? | 5                  | 3     | 4                 | 2     | 5                 | 5     |
| 10. Show interest in activities<br>in a group                | 4                  | 5     | 5                 | 5     | 5                 | 3     |
| 11. Show pleasure in initiating<br>activities by smiling?    | 4                  | 5     | 5                 | 4     | 4                 | 5     |
| 12. Show enjoyment in accomplish-<br>ment?                   | 4                  | 5     | 5                 | 4     | 5                 | 5     |
| 13. Make more than one effort to<br>accomplish a task?       | 5                  | 5     | 4                 | 5     | 5                 | 5     |
| 14. Finish an activity begun?                                | 5                  | 4     | 4                 | 5     | 5                 | 5     |
| 15. Follow willingly when sup-<br>posed to be a follower?    | 4                  | 4     | 4                 | 5     | 4                 | 5     |
| 16. Ask to be a leader?                                      | 2                  | 4     | 2                 | 4     | 4                 | 3     |

TABLE VIII (continued)

| Emotional Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 17. Show enjoyment in leading?                                  | 4                  | 5     | 4                 | 4     | 3                 | 2     |
| 18. Appear demonstrative?                                       | 4                  | 5     | 3                 | 5     | 2                 | 3     |
| 19. Show that he is pleased with affection from other children? | 3                  | 5     | 5                 | 4     | 3                 | 2     |
| 20. Remain natural with strangers?                              | 3                  | 4     | 4                 | 5     | 4                 | 4     |
| 21. Stand up for his own rights?                                | 5                  | 5     | 5                 | 4     | 4                 | 4     |
| 22. Talk freely?  | 5                  | 5     | 4                 | 4     | 3                 | 3     |
| 23. Talk distinctly?  | 5                  | 5     | 5                 | 5     | 5                 | 4     |
| 24. Respect authority?  | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 25. Obey when corrected?  | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 26. Take accidents to himself calmly?                           | 2                  | 4     | 5                 | 3     | 5                 | 5     |
| 27. Remain calm during thunderstorms?                           | 5                  | 5     | 4                 | 5     | 5                 | 5     |
| 28. Smile with meaning?   | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 29. Show discomfort over dirty conditions, hands, dress, etc.   | 3                  | 4     | 0                 | 4     | 2                 | 4     |
| 30. Swing fearlessly?   | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 31. Listen to music with apparent pleasure?                     | 5                  | 4     | 5                 | 5     | 5                 | 5     |
| 32. Enjoy making rhythmic sounds?                               | 4                  | 3     | 5                 | 5     | 5                 | 5     |
| 33. Ask for music?  | 1                  | 3     | 3                 | 2     | 3                 | 4     |
| 34. Show enjoyment of pictures, e.g., call attention to them?   | 5                  | 4     | 5                 | 5     | 5                 | 5     |

TABLE VIII(continued)

| EMOTIONAL HABITS  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 35. Handle pictures with care?                                  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 36. Listen to a story with<br>apparent enjoyment?               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 37. Handle books with care?                                     | 4                  | 3     | 4                 | 5     | 4                 | 5     |
| 38. Notice plants and flowers?                                  | 3                  | 4     | 1                 | 3     | 5                 | 0     |
| 39. Come to table willingly?                                    | 5                  | 5     | 4                 | 5     | 5                 | 5     |
| 40. Taste food willingly?                                       | 5                  | 4     | 4                 | 4     | 5                 | 5     |
| 41. Eat food without urging?                                    | 5                  | 4     | 5                 | 3     | 5                 | 5     |
| 42. Eat or drink without special<br>attention from adult?       | 4                  | 3     | 5                 | 4     | 4                 | 5     |
| 43. Enjoy his food?   | 4                  | 5     | 5                 | 2     | 5                 | 5     |
| 44. Show no special food dislike?                               | 3                  | 2     | 5                 | 2     | 5                 | 5     |
| 45. Go to bathroom willingly?                                   | 3                  | 5     | 5                 | 5     | 5                 | 5     |
| 46. Get on, use, and get off the<br>toilet without crying, etc. | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 47. Go to bed willingly?  | 3                  | 5     | 2                 | 4     | 5                 | 5     |
| 48. Go to sleep without an<br>adult near by?                    | 3                  | 4     | 3                 | 4     | 5                 | 5     |
| 49. Assume relaxed position<br>when sleeping or resting?        | 5                  | 3     | 3                 | 2     | 3                 | 0     |
| <u>MENTAL HABITS</u>  |                    |       |                   |       |                   |       |
| 1. Attend to one thing<br>consecutively for a few<br>seconds?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |

TABLE VIII(continued)

| Mental Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 2. Attend to one thing consecutively for three minutes?              | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 3. Attend to one thing consecutively for four minutes?               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 4. Attend to one thing consecutively for five minutes?               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 5. Attend to one thing consecutively for ten minutes?                | 5                  | 3     | 5                 | 5     | 5                 | 5     |
| 6. Attend to one thing consecutively for twenty minutes?             | 5                  | 0     | 4                 | 3     | 5                 | 3     |
| 7. Attend to one thing consecutively for half hour?                  | 5                  | 0     | 4                 | 3     | 4                 | 3     |
| 8. Attend to one thing consecutively for more than a half hour?      | 5                  | 0     | 4                 | 3     | 4                 | 4     |
| 9. If interrupted, return to the original activity?                  | 5                  | 5     | 4                 | 5     | 5                 | 5     |
| 10. Carry out one direction without repetition?                      | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 11. Carry out three verbal directions without repetition?            | 5                  | 1     | 3                 | 5     | 5                 | 4     |
| 12. Carry out a plan which involves two steps or more for execution? | 0                  | 2     | 4                 | 5     | 5                 | 5     |
| 13. Carry a written message or object to destination as directed?    | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 14. Show interest in one thing only?                                 | 4                  | 4     | 4                 | 4     | 5                 | 5     |

TABLE VIII(continued)

| Mental Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 15. Show interest in acts of others?                                 | 5                  | 3     | 5                 | 3     | 5                 | 4     |
| 16. Watch the fish?  | 5                  | 5     | 1                 | 2     | 4                 | 4     |
| 17. Watch the birds?   | 5                  | 2     | 1                 | 3     | 3                 | 4     |
| 18. Watch the animals?   | 3                  | 3     | 1                 | 4     | 4                 | 5     |
| 19. Show interest in a variety of things?                            | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 20. Show interest in new or unusual things in a situation?           | 2                  | 5     | 5                 | 4     | 5                 | 5     |
| 21. Show interest in causes, e.g., if a door will not shut?          | 5                  | 2     | 4                 | 4     | 5                 | 5     |
| 22. Appear interested in his image in the mirror?                    | 5                  | 4     | 4                 | 3     | 5                 | 1     |
| 23. Show that he recognized the mirrored image of himself or others? | 5                  | 4     | 4                 | 5     | 5                 | 1     |
| 24. Show that he foresees the result of an act?                      | 4                  | 4     | 4                 | 4     | 5                 | 5     |
| 25. Show interest in knowing names for people, things, etc.?         | 2                  | 2     | 4                 | 4     | 5                 | 5     |
| 26. Give special, that is, peculiar, names to people?                | 0                  | 4     | 2                 | 4     | 1                 | 0     |
| 27. Know the names of children, teachers, etc.?                      | 1                  | 5     | 5                 | 5     | 5                 | 5     |
| 28. Know and use his own name?                                       | 0                  | 5     | 5                 | 5     | 5                 | 4     |
| 29. Use the names of children?                                       | 3                  | 4     | 5                 | 5     | 5                 | 5     |
| 30. Use the names of teachers?                                       | 5                  | 5     | 5                 | 5     | 5                 | 5     |

TABLE VIII(continued)

| Mental Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 31. Use the names of objects in the school?                                   | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 32. Use the names of objects outside of school?                               | 2                  | 4     | 5                 | 5     | 5                 | 5     |
| 33. Designate or use correctly names for parts of body?                       | 1                  | 5     | 5                 | 5     | 5                 | 5     |
| 34. Designate or name correctly articles of clothing?                         | 2                  | 5     | 5                 | 3     | 5                 | 5     |
| 35. Know when hands are dirty?  | 2                  | 5     | 5                 | 5     | 4                 | 5     |
| 36. Ask to go to the toilet?  | 1                  | 4     | 5                 | 4     | 3                 | 2     |
| 37. Go to the toilet without asking?  | 5                  | 3     | 1                 | 1     | 1                 | 1     |
| 38. Show by word or action that he knows when he is through using the toilet? | 0                  | 5     | 2                 | 5     | 5                 | 5     |
| 39. Flush toilet without being reminded?                                      | 3                  | 2     | 4                 | 1     | 1                 | 1     |
| 40. Wash hands after going to the toilet without being reminded?              | 0                  | 4     | 1                 | 5     | 5                 | 5     |
| 41. Know his birthday?  | 4                  | 0     | 5                 | 4     | 5                 | 5     |
| 42. Tell his age voluntarily or when questioned?                              | 0                  | 2     | 5                 | 5     | 5                 | 5     |
| 43. Know the street he lives on?  | 2                  | 0     | 5                 | 5     | 5                 | 5     |
| 44. Know the number of his house?   | 4                  | 0     | 5                 | 4     | 5                 | 5     |
| 45. Know name of city in which he lives?                                      | 5                  | 0     | 2                 | 1     | 4                 | 5     |

TABLE VIII (continued)

| Mental Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|--|-----------------|-------|----------------|-------|----------------|-------|
|  | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 46. Know his father's or mother's name, e.g., use it in conversation?          | 5               | 5     | 5              | 3     | 5              | 5     |
| 47. Know when to use a handkerchief?   | 2               | 4     | 5              | 5     | 5              | 5     |
| 48. Use a handkerchief properly?   | 2               | 4     | 5              | 5     | 5              | 5     |
| 49. Show that he knows the symbol used for identifying his locker, hook, etc.? | 4               | 5     | 5              | 5     | 5              | 5     |
| 50. Hang up or put away wraps in correct place?                                | 2               | 5     | 5              | 5     | 5              | 5     |
| 51. Hang up or put away clothes in correct place without being reminded?       | 3               | 5     | 5              | 5     | 5              | 5     |
| 52. Change shoes without being reminded?                                       | 4               | 5     | 5              | 5     | 3              | 4     |
| 53. Put shoes in locker without being reminded?                                | 0               | 5     | 5              | 5     | 3              | 4     |
| 54. Close locker door without being reminded?                                  | 2               | 5     | 5              | 5     | 3              | 4     |
| 55. Remove shoes before nap without being reminded?                            | 5               | 5     | 5              | 5     | 5              | 5     |
| 56. Put shoes in place before nap without being reminded?                      | 5               | 5     | 5              | 5     | 5              | 5     |
| 57. Put on shoes after nap without being reminded?                             | 5               | 5     | 5              | 5     | 5              | 5     |
| 58. Put on bib ready to be fastened?   | 5               | 5     | 5              | 5     | 5              | 5     |



TABLE VIII(continued)

| Mental Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 59. Put on bib ready to be fastened without being reminded?  | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 60. Unfasten and take off bib?   | 2                  | 5     | 5                 | 5     | 5                 | 5     |
| 61. Take his dish or cup to the serving table without being reminded?  | 4                  | 5     | 5                 | 5     | 4                 | 4     |
| 62. Push his chair under the table without being reminded?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 63. Use toothbrush without being reminded?   | 4                  | 3     | 5                 | 5     | 5                 | 5     |
| 64. Put away playthings or materials without being reminded?   | 4                  | 1     | 1                 | 1     | 1                 | 3     |
| 65. Hold his hand in front of mouth without being reminded, when he coughs?  | 2                  | 3     | 4                 | 4     | 4                 | 3     |
| 66. Show sense of order, e.g., turn down rug, hang up coat?  | 3                  | 2     | 4                 | 4     | 4                 | 3     |
| 67. Show that habits, like eating, etc., which should be automatic, are not broken down when he watches his neighbor or his attention is otherwise diverted? | 2                  | 2     | 4                 | 5     | 5                 | 5     |
| 68. Wait his turn in conversation?   | 5                  | 5     | 3                 | 5     | 5                 | 5     |
| 69. Listen attentively while others talk?  | 3                  | 5     | 4                 | 5     | 5                 | 5     |

TABLE VIII(continued)

| Mental Habits                                      | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 70. Show curiosity, ask questions, examines?       | 4                  | 5     | 5                 | 4     | 4                 | 4     |
| 71. Manipulate materials?                          | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 72. Experiment with materials?                     | 5                  | 5     | 5                 | 4     | 4                 | 4     |
| 73. Use materials, playthings, in customary way?   | 0                  | 5     | 5                 | 5     | 5                 | 5     |
| 74. Use materials, etc., in unusual way?           | 0                  | 5     | 5                 | 4     | 4                 | 3     |
| 75. Make products that meet his play needs?        | 0                  | 2     | 4                 | 2     | 4                 | 2     |
| 76. Ask for materials not in evidence?             | 0                  | 0     | 4                 | 5     | 2                 | 2     |
| 77. Show appreciation of something lacking?        | 4                  | 2     | 3                 | 4     | 3                 | 3     |
| 78. Seek cooperation of other children?            | 4                  | 5     | 5                 | 1     | 1                 | 3     |
| 79. Plan his work?                                 | 5                  | 4     | 5                 | 2     | 3                 | 3     |
| 80. Initiate an activity?                          | 4                  | 5     | 5                 | 2     | 4                 | 3     |
| 81. Show a continuity in interest from day to day? | 0                  | 5     | 5                 | 4     | 4                 | 5     |
| 82. Try to improve his work in face of difficulty? | 0                  | 2     | 4                 | 2     | 4                 | 3     |
| 83. Finish an activity?                            | 3                  | 4     | 4                 | 3     | 4                 | 4     |
| 84. Choose material appropriate to need?           | 2                  | 5     | 5                 | 4     | 5                 | 4     |
| 85. Criticize the accomplishments?                 | 2                  | 3     | 4                 | 4     | 2                 | 3     |

TABLE VIII(continued)

| Mental Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 86. Criticize his own accomplishments?   | 4                  | 5     | 4                 | 1     | 4                 | 2     |
| 87. Draw or paint and name an object unrecognizable to an adult?   | 5                  | 4     | 5                 | 5     | 5                 | 4     |
| 88. Draw or paint and name an object recognizable to an adult?   | 5                  | 2     | 4                 | 3     | 5                 | 4     |
| 89. Interpret pictures which he has drawn?   | 5                  | 3     | 5                 | 5     | 5                 | 5     |
| 90. Contribute ideas about decoration or design?   | 5                  | 1     | 2                 | 4     | 3                 | 2     |
| 91. Make or construct an object which he may afterwards name, though it may not be recognizable to an adult? | 4                  | 5     | 4                 | 3     | 4                 | 5     |
| 92. Show a sense of balance?   | 5                  | 0     | 4                 | 2     | 4                 | 5     |
| 93. Enumerate when looking at pictures?  | 0                  | 3     | 5                 | 5     | 4                 | 5     |
| 94. Describe when looking at pictures?   | 1                  | 5     | 5                 | 5     | 4                 | 5     |
| 95. Interpret when looking at pictures?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 96. Show that he knows when pictures are upside down?  | 4                  | 5     | 5                 | 4     | 5                 | 5     |
| 97. Show interest in content of book?  | 3                  | 2     | 5                 | 5     | 5                 | 5     |
| 98. Identify himself with an object, animal, e.g., say, ("I am a bear," etc.)                                | 5                  | 2     | 4                 | 4     | 4                 | 4     |

TABLE VIII(continued)

| Mental Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|--|-----------------|-------|----------------|-------|----------------|-------|
|  | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 99. Dramatize a simple experience?   | 5               | 5     | 5              | 4     | 4              | 4     |
| 100. Dramatize a simple story on his own initiative?                             | 5               | 4     | 5              | 3     | 4              | 1     |
| 101. Use materials as aids in dramatic play?                                     | 3               | 5     | 5              | 5     | 4              | 4     |
| 102. Prefer doll undressed?  | 4               | 3     | 4              | 4     | 4              | 3     |
| 103. Have an imaginary pet or playmate?  | 0               | 5     | 0              | 1     | 5              | 0     |
| 104. Communicate by means of gestures?   | 2               | 2     | 0              | 0     | 2              | 0     |
| 105. Talk?   | 5               | 5     | 5              | 5     | 1              | 5     |
| 106. In talking make himself easily understood?                                  | 5               | 5     | 5              | 5     | 5              | 5     |
| 107. Talk distinctly?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 108. Express himself in words?   | 5               | 4     | 5              | 5     | 4              | 5     |
| 109. Express himself in phrases?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 110. Express himself in sentences?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 111. Use his name in speaking of himself?  | 2               | 1     | 1              | 1     | 2              | 1     |
| 112. Use "me" for "I" in speaking of himself?                                    | 1               | 0     | 0              | 0     | 1              | 0     |
| 113. Use "I" in speaking of himself?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 114. Express his thoughts verbally so that they are comprehended by adults?      | 5               | 5     | 5              | 5     | 5              | 5     |
| 115. Express his ideas verbally so that they are comprehended by other children? | 5               | 5     | 5              | 5     | 5              | 5     |
| 116. Express his ideas in such a way as to hold the interest of the group?       | 3               | 5     | 5              | 1     | 5              | 5     |
| 117. Complete a rhyme started by another person?                                 | 4               | 5     | 5              | 5     | 4              | 5     |
| 118. Repeat a rhyme after another person?  | 5               | 5     | 5              | 5     | 5              | 5     |

TABLE VIII(continued)

| Mental Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 119. Repeat any part of a rhyme without help?                               | 4                  | 4     | 5                 | 5     | 5                 | 5     |
| 120. Repeat a whole rhyme without help?                                     | 4                  | 4     | 5                 | 5     | 5                 | 5     |
| 121. Sing simple tunes with help?   | 5                  | 5     | 5                 | 5     | 5                 | 3     |
| 122. Sing any part of a simple tune alone?                                  | 2                  | 4     | 5                 | 5     | 5                 | 5     |
| 123. Sing the words of any part of a song?                                  | 3                  | 4     | 5                 | 4     | 5                 | 3     |
| 124. Sing the words of a whole song?  | 2                  | 4     | 5                 | 4     | 5                 | 3     |
| 125. Compose original songs, music or words?                                | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 126. Tell a simple experience?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 127. Volunteer information?   | 4                  | 5     | 5                 | 4     | 5                 | 4     |
| 128. Repeat what has already been said?                                     | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 129. Respond when spoken to?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 130. Ask questions to obtain information from adults?                       | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 131. Ask questions to obtain information from children?                     | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 132. Show that he recognizes sounds?  | 4                  | 4     | 4                 | 4     | 4                 | 4     |
| 133. Show that he knows the difference between real and unreal?             | 4                  | 3     | 5                 | 5     | 5                 | 5     |
| 134. Imitate the word or action of another?                                 | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 135. Indicate idea of distance from one place to another by word or action? | 2                  | 1     | 5                 | 5     | 4                 | 4     |
| 136. Indicate idea of distance from one place to another by word or action? | 0                  | 1     | 5                 | 4     | 5                 | 4     |
| 137. Indicate idea of form by word or action?                               | 2                  | 3     | 5                 | 5     | 5                 | 4     |
| 138. Indicate idea of quantity by word or action, e.g., more or less?       | 1                  | 1     | 5                 | 4     | 5                 | 4     |

TABLEVIII(continued)

| Mental Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 139. Indicate idea of time by word or action, e.g., time for lunch, etc.? | 2                  | 2     | 5                 | 3     | 3                 | 5     |
| 140. Associate any hour on the clock with a personal experience?          | 1                  | 0     | 4                 | 0     | 3                 | 0     |
| 141. Tell the hour, show interest in telling time?                        | 0                  | 0     | 1                 | 0     | 3                 | 1     |
| 142. Indicate an idea of time, as last Tuesday, yesterday?                | 1                  | 0     | 1                 | 3     | 4                 | 5     |
| 143. Name any days of the week?   | 0                  | 0     | 3                 | 4     | 4                 | 4     |
| 144. Name any months of the year?   | 0                  | 0     | 3                 | 4     | 4                 | 4     |
| 145. Use comparative terms denoting number, size?                         | 1                  | 1     | 3                 | 3     | 1                 | 0     |
| 146. Count children, playthings?  | 0                  | 0     | 0                 | 5     | 3                 | 1     |
| 147. Comprehend quantity?   | 0                  | 0     | 4                 | 2     | 0                 | 0     |
| 148. Recognize and apply number to specific situation?                    | 1                  | 0     | 5                 | 5     | 5                 | 5     |
| 149. Count from 1 to 10?  | 1                  | 1     | 2                 | 5     | 5                 | 5     |
| 150. Count from 1 to 20?  | 0                  | 1     | 5                 | 4     | 2                 | 2     |
| 151. Read figures, e.g., 1,2,3?   | 0                  | 0     | 4                 | 3     | 1                 | 2     |
| 152. Match colors without their being named?                              | 0                  | 0     | 1                 | 5     | 5                 | 5     |
| 153. Match colors if they are named?                                      | 3                  | 2     | 0                 | 5     | 5                 | 5     |
| 154. Name colors?   | 2                  | 3     | 4                 | 5     | 5                 | 5     |
| 155. Show that he realizes inappropriateness of act of another child?     | 2                  | 5     | 5                 | 5     | 4                 | 5     |
| 156. Show recognition of his own property?                                | 1                  | 0     | 4                 | 3     | 4                 | 5     |
| 157. Spontaneously recall event of the day before?                        | 1                  | 0     | 4                 | 3     | 4                 | 5     |
| 158. Spontaneously recall event of the same day?                          | 0                  | 0     | 5                 | 2     | 4                 | 5     |
| 159. Spontaneously recall event of two days before?                       | 0                  | 0     | 3                 | 3     | 2                 | 3     |
| 160. Spontaneously recall event of one year before?                       | 0                  | 0     | 2                 | 3     | 0                 | 2     |
| 161. Spontaneously recall event of one month before?                      | 0                  | 0     | 1                 | 2     | 0                 | 0     |
| 162. Recognize his own written name?                                      | 5                  | 0     | 4                 | 4     | 4                 | 4     |

TABLE VIII(continued)

| Mental Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|--|-----------------|-------|----------------|-------|----------------|-------|
|  | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 163. Recognize another child's written name?   | 5               | 0     | 0              | 1     | 1              | 0     |
| 164. Recognize any written words other than children's names, e.g., mention traffic signals?                 | 5               | 0     | 0              | 1     | 0              | 0     |
| 165. Show interest in letters of the alphabet?   | 5               | 0     | 0              | 0     | 1              | 3     |
| 166. Use any of the letters of the alphabet in a way to indicate that they have meaning, e.g., spell a word? | 5               | 0     | 0              | 0     | 1              | 2     |
| 167. Choose chair of correct size?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 168. Put shoes on correct foot?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 169. Show dissatisfaction when doll is incorrectly dressed?  | 3               | 1     | 4              | 4     | 5              | 4     |
| 170. Recognize his own rights?   | 5               | 3     | 5              | 5     | 5              | 5     |
| 171. React to a humorous situation, e.g., laugh?   | 4               | 1     | 4              | 5     | 5              | 5     |
| 172. Contribute to discussions indicating a nature interest?   | 2               | 1     | 4              | 4     | 5              | 5     |
| 173. Contribute to discussions indicating a transportation of interest?                                      | 1               | 2     | 5              | 4     | 5              | 5     |
| 174. Contribute to discussions indicating a social interest?   | 4               | 5     | 4              | 5     | 5              | 5     |
| 175. Show that he knows when it is safe to cross the street?   | 5               | 5     | 5              | 4     | 5              | 4     |

TABLE VIII(continued)

| Motor Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| Does the child                                       |                    |       |                   |       |                   |       |
| 1. Unbutton at least one button of his clothing?     | 4                  | 5     | 5                 | 5     | 4                 | 5     |
| 2. Unbutton more than one button?                    | 4                  | 4     | 5                 | 5     | 4                 | 5     |
| 3. Button at least one button of his clothing?       | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 4. Button more than one button of his clothing?      | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 5. Unbutton clothing in the back?                    | 3                  | 2     | 3                 | 5     | 4                 | 2     |
| 6. Button clothing in the back?                      | 2                  | 1     | 3                 | 5     | 4                 | 2     |
| 7. Take off outer wraps with help?                   | 4                  | 1     | 4                 | 5     | 3                 | 4     |
| 8. Put on outer wrap with help?                      | 5                  | 3     | 2                 | 3     | 0                 | 1     |
| 9. Take off any portion of outer wraps without help? | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 10. Put on any portion of outer wraps without help?  | 3                  | 5     | 5                 | 5     | 4                 | 3     |
| 11. Take off all his outer wraps without help?       | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 12. Put on his outer wraps without help?             | 0                  | 3     | 3                 | 3     | 5                 | 5     |
| 13. Take off clothes with help?                      | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 14. Put on clothes with help?                        | 5                  | 5     | 5                 | 5     | 4                 | 5     |
| 15. Take off clothes without help?                   | 4                  | 5     | 4                 | 5     | 5                 | 5     |
| 16. Put on clothes without help?                     | 3                  | 4     | 4                 | 5     | 5                 | 5     |
| 17. Unfasten bib?                                    | 5                  | 5     | 5                 | 4     | 5                 | 5     |
| 18. Fasten bib?                                      | 5                  | 5     | 4                 | 4     | 5                 | 5     |
| 19. Take off shoes?                                  | 4                  | 5     | 4                 | 5     | 5                 | 5     |
| 20. Put on shoes?                                    | 4                  | 4     | 4                 | 5     | 5                 | 5     |
| 21. Unlace one shoe?                                 | 5                  | 3     | 4                 | 5     | 5                 | 5     |
| 22. Unlace both shoes?                               | 5                  | 3     | 5                 | 4     | 5                 | 5     |
| 23. Unbutton one shoe?                               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 24. Unbutton both shoes?                             | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 25. Lace one shoe?                                   | 5                  | 1     | 3                 | 5     | 5                 | 5     |
| 26. Lace both shoes?                                 | 2                  | 1     | 3                 | 5     | 5                 | 5     |
| 27. Button one shoe?                                 | 3                  | 4     | 5                 | 5     | 5                 | 5     |
| 28. Button both shoes?                               | 3                  | 4     | 5                 | 5     | 5                 | 5     |



TABLE VIII(continued)

| Motor Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 29. Take off socks?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 30. Put on socks?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 31. Unfasten garters?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 32. Fasten garters?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 33. Unfasten zipper galoshes?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 34. Fasten zipper galoshes?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 35. Unfasten buckle galoshes?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 36. Fasten buckle galoshes?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 37. Unfasten zipper leggings?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 38. Fasten zipper leggings?  | 5                  | 5     | 5                 | 4     | 5                 | 5     |
| 39. Take off galoshes with help?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 40. Take off galoshes without help?  | 5                  | 4     | 4                 | 5     | 5                 | 5     |
| 41. Put on galoshes with help?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 42. Put on galoshes without help?  | 3                  | 3     | 4                 | 5     | 5                 | 5     |
| 43. Take off leggings with help?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 44. Take off leggings without help.  | 4                  | 3     | 4                 | 4     | 5                 | 5     |
| 45. Put on leggings with help?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 46. Put on leggings without help?  | 5                  | 3     | 5                 | 3     | 5                 | 5     |
| 47. Take off rubbers with help?  | 5                  | 5     | 4                 | 5     | 5                 | 5     |
| 48. Take off rubbers without help?   | 5                  | 3     | 5                 | 5     | 5                 | 5     |
| 49. Put on rubbers with help?  | 5                  | 4     | 5                 | 5     | 5                 | 5     |
| 50. Put on rubbers without help?   | 5                  | 3     | 3                 | 5     | 5                 | 4     |
| 51. Pull up stockings or leggings?   | 4                  | 5     | 5                 | 5     | 5                 | 4     |
| 52. Untie a knot?  | 0                  | 3     | 2                 | 3     | 5                 | 4     |
| 53. Tie a knot?  | 0                  | 2     | 2                 | 3     | 5                 | 4     |
| 54. Tie a bow?   | 0                  | 0     | 4                 | 5     | 5                 | 5     |
| 55. Walk up or down steps holding on, with one foot on a step at a time, using feet alternately? | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 56. Walk steadily?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 57. Walk without dragging feet?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 58. Walk backwards?  | 1                  | 2     | 3                 | 5     | 3                 | 5     |
| 59. Run unsteadily without falling?  | 1                  | 0     | 0                 | 0     | 0                 | 0     |
| 60. Run without falling, steadily but little controlled?   | 1                  | 0     | 0                 | 0     | 2                 | 0     |

TABLE VIII (continued)

| Motor Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 61. Run steadily and controlled without falling?              | 5               | 5     | 5              | 5     | 5              | 5     |
| 62. Run lightly?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 63. Run backwards?  | 1               | 1     | 3              | 4     | 4              | 4     |
| 64. Skip on one foot?   | 1               | 3     | 5              | 4     | 5              | 5     |
| 65. Skip on two feet?   | 5               | 4     | 5              | 4     | 5              | 5     |
| 66. Gallop?   | 3               | 3     | 5              | 4     | 5              | 2     |
| 67. Show motor control in rhythmic response?                  | 4               | 4     | 5              | 4     | 5              | 5     |
| 68. Whirl without falling down?                               | 3               | 3     | 5              | 5     | 5              | 4     |
| 69. Clap or tap to music?                                     | 5               | 5     | 5              | 5     | 5              | 5     |
| 70. Get up from floor, using two hands for support?           | 2               | 4     | 3              | 4     | 4              | 5     |
| 71. Get up from floor, using one hand for support?            | 4               | 4     | 3              | 5     | 4              | 5     |
| 72. Get up from floor without any support?                    | 1               | 1     | 5              | 4     | 5              | 5     |
| 73. Climb on anything about three feet high, such as lockers? | 5               | 5     | 5              | 5     | 5              | 5     |
| 74. Climb one or two rungs of the jungle gym?                 | 5               | 5     | 5              | 5     | 5              | 5     |
| 75. Climb down jungle gym?                                    | 5               | 5     | 5              | 5     | 5              | 5     |
| 76. Climb to top of jungle gym?                               | 5               | 5     | 5              | 5     | 5              | 5     |
| 77. Climb rope ladder?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 78. Climb down rope ladder?                                   | 5               | 5     | 5              | 5     | 5              | 5     |
| 79. Climb on blocks, steps, etc.?                             | 5               | 5     | 5              | 5     | 5              | 5     |
| 80. Do any other climbing?                                    | 5               | 5     | 5              | 5     | 4              | 5     |
| 81. Jump up and down without falling?                         | 5               | 5     | 5              | 5     | 5              | 5     |
| 82. Jump down six inches without falling?                     | 5               | 5     | 5              | 5     | 5              | 5     |
| 83. Jump down one foot without falling?                       | 5               | 5     | 5              | 5     | 5              | 5     |
| 84. Jump down three or more feet without falling?             | 2               | 4     | 5              | 5     | 5              | 5     |
| 85. Go up the slide?  |                 |       |                |       |                |       |
| 86. Go down the slide with help?                              | 4               | 2     | 5              | 4     | 3              | 4     |
| 87. Go down the slide without help?                           | 2               | 5     | 5              | 5     | 4              | 3     |
| 88. Go down the slide holding on?                             | 5               | 5     | 5              | 5     | 4              | 3     |

TABLE VIII(continued)

| Motor Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 89. Go down the slide without holding on?                   | 2                  | 5     | 5                 | 4     | 5                 | 5     |
| 90. Go down the slide in more than one way?                 | 2                  | 1     | 5                 | 5     | 5                 | 5     |
| 91. Go up the slide in more than one way?                   | 3                  | 0     | 5                 | 4     | 2                 | 3     |
| 92. Get on the see-saw without help?                        | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 93. Use the see-saw?  | 1                  | 0     | 4                 | 4     | 4                 | 4     |
| 94. Get in the swing without help?                          | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 95. Swing himself?  | 2                  | 4     | 5                 | 5     | 5                 | 5     |
| 96. Swing on rope ladder?                                   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 97. Swing when hanging from a height higher than himself?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 98. Swing on rings?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 99. Swing on giant stride?                                  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 100. Swing sitting?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 101. Swing standing up?                                     | 1                  | 0     | 5                 | 5     | 5                 | 5     |
| 102. Swing standing with another child?                     | 1                  | 1     | 5                 | 5     | 5                 | 5     |
| 103. Swing another child?                                   | 5                  | 0     | 5                 | 5     | 5                 | 5     |
| 104. Bounce a small ball so it bounds back nearly straight? | 1                  | 1     | 5                 | 4     | 5                 | 5     |
| 105. Bounce a large ball so it bounds back nearly straight? | 1                  | 2     | 5                 | 5     | 5                 | 5     |
| 106. Catch a ball?  | 3                  | 2     | 5                 | 5     | 5                 | 5     |
| 107. Bounce and catch a ball?                               | 4                  | 4     | 5                 | 5     | 5                 | 5     |
| 108. Throw or roll a ball seven feet or more?               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 109. Throw or roll a ball to a definite object?             | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 110. Throw a ball or other object into the air?             | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 111. Kick a ball?   | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 112. Walk the walking beam with help?                       | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 113. Walk the walking beam without help?                    | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 114. Use the walking beam without falling off?              | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 115. Get on and ride plain kiddie-kar without help?         | 5                  | 5     | 5                 | 5     | 5                 | 5     |

TABLE VIII(continued)

| Motor Habits  | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|---|--------------------|-------|-------------------|-------|-------------------|-------|
|   | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 116. Get on and ride velocipede without help?                   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 117. Get on and ride scooter without help?                      | 4                  | 4     | 5                 | 5     | 5                 | 5     |
| 118. Get on and ride two-wheeler without help?                  | 4                  | 2     | 5                 | 5     | 4                 | 5     |
| 119. Get on and ride bicycle without help?                      | 4                  | 5     | 5                 | 5     | 4                 | 5     |
| 120. Ride any vehicle up an incline?                            | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 121. Ride any vehicle down an incline?                          | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 122. Guide doll carriage, wagon or other vehicle?               | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 123. Guide doll carriage, wagon or other vehicle up an incline? | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 124. Guide a train of blocks in a definite direction?           | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 125. Push or pull kiddie-Kar?                                   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 126. Pile blocks unevenly?                                      | 5                  | 5     | 5                 | 5     | 4                 | 3     |
| 127. Pile blocks evenly?  | 3                  | 4     | 5                 | 5     | 4                 | 4     |
| 128. Build blocks into high towers that fall?                   | 5                  | 5     | 2                 | 4     | 2                 | 1     |
| 129. Build blocks into high towers that do not fall?            | 2                  | 2     | 3                 | 5     | 5                 | 4     |
| 130. Build blocks into high towers with two hands?              | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 131. Build blocks into high towers with one hand?               | 0                  | 2     | 5                 | 5     | 5                 | 5     |
| 132. Fit blocks together?                                       | 2                  | 1     | 4                 | 5     | 5                 | 5     |
| 133. Fit notched blocks together?                               | 2                  | 1     | 5                 | 5     | 4                 | 4     |
| 134. Make trains of block?                                      | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 135. Make houses of blocks?                                     | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 136. Make other objects of blocks?                              | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 137. Fit pegs or rods into holes of blocks?                     | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 138. Dig sand with spoon or other utensil?                      | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 139. Use shovel or spoon to fill utensil with sand, dirt?       | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 140. Pat sand into shapes?                                      | 4                  | 5     | 5                 | 5     | 5                 | 5     |

TABLE VIII (continued)

| Motor Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 141. Make pies or cakes with sand or dirt?                  | 4               | 5     | 5              | 5     | 5              | 5     |
| 142. Use sand without spilling?                             | 2               | 0     | 5              | 5     | 4              | 5     |
| 143. Pinch pieces off clay?                                 | 5               | 5     | 5              | 5     | 5              | 5     |
| 144. Separate clay from mass?                               | 5               | 5     | 5              | 5     | 5              | 5     |
| 145. Pat, pound, poke, or otherwise manipulate clay?        | 5               | 5     | 5              | 5     | 5              | 5     |
| 146. Mold clay into flat pieces?                            | 5               | 5     | 5              | 5     | 5              | 5     |
| 147. Mold clay into balls or snakes?                        | 5               | 5     | 5              | 4     | 5              | 5     |
| 148. Put pegs into peg-board systematically?                | 5               | 5     | 5              | 5     | 4              | 4     |
| 149. Undress doll?  | 1               | 2     | 4              | 5     | 4              | 5     |
| 150. Dress doll with help?                                  | 5               | 3     | 4              | 5     | 4              | 5     |
| 151. Dress doll without help?                               | 2               | 4     | 5              | 5     | 5              | 5     |
| 152. Put doll's legs or arms into proper holes of garments? | 5               | 1     | 4              | 5     | 5              | 5     |
| 153. Dress doll without fastening clothes?                  | 5               | 3     | 4              | 5     | 5              | 5     |
| 154. Fasten doll's clothes?                                 | 4               | 4     | 4              | 5     | 5              | 5     |
| 155. Use crayons?   | 3               | 3     | 4              | 5     | 5              | 5     |
| 156. Make light lines with crayons?                         | 5               | 5     | 5              | 5     | 4              | 5     |
| 157. Make heavy lines with crayons?                         | 0               | 1     | 2              | 4     | 3              | 0     |
| 158. Make picture with crayons?                             | 5               | 5     | 5              | 5     | 5              | 5     |
| 159. Scribble?  | 3               | 3     | 4              | 4     | 5              | 5     |
| 160. Draw straight vertical lines?                          | 5               | 4     | 3              | 4     | 3              | 1     |
| 161. Draw straight horizontal lines?                        | 3               | 2     | 4              | 5     | 5              | 5     |
| 162. Draw circles?  | 2               | 2     | 5              | 5     | 5              | 5     |
| 163. Daub paint?  | 1               | 2     | 5              | 5     | 5              | 5     |
| 164. Use paint brush with scrubbing motion?                 | 5               | 4     | 5              | 5     | 5              | 4     |
| 165. Use paint brush with side to side motion?              | 4               | 2     | 5              | 4     | 4              | 4     |
| 166. Use paint brush to make a design?                      | 1               | 2     | 5              | 3     | 4              | 2     |

TABLE VIII (continued)

| Motor Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 167. Paint a picture?  | 1                  | 1     | 4                 | 3     | 3                 | 2     |
| 168. Paint any object made in industrial arts?                 | 1                  | 1     | 4                 | 5     | 3                 | 3     |
| 169. Manipulate scissors?                                      | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 170. Snip paper with scissors?                                 | 5                  | 4     | 5                 | 5     | 5                 | 5     |
| 171. Cut paper with scissors?                                  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 182. Cut out pictures or something similar?                    | 2                  | 2     | 5                 | 5     | 5                 | 5     |
| 173. Cut thread or string with scissors?                       | 0                  | 2     | 5                 | 5     | 5                 | 5     |
| 174. Cut cloth with scissors?                                  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 175. Cut on a curved line with scissors?                       | 2                  | 2     | 5                 | 5     | 5                 | 5     |
| 176. Use scissors steadily and in controlled manner?           | 4                  | 5     | 5                 | 5     | 5                 | 5     |
| 177. Use hammer to pound in nails when they have been started? | 0                  | 3     | 5                 | 5     | 5                 | 5     |
| 178. Use hammer to start nails?                                | 0                  | 1     | 5                 | 5     | 5                 | 5     |
| 179. Use hammer to draw out nails?                             | 0                  | 0     | 5                 | 5     | 5                 | 5     |
| 180. Drive nails straight?                                     | 0                  | 0     | 5                 | 5     | 5                 | 5     |
| 181. Straighten nail when it has gone crooked?                 | 0                  | 1     | 3                 | 5     | 5                 | 4     |
| 182. Use saw with help?  | 0                  | 0     | 5                 | 5     | 4                 | 5     |
| 183. Use saw after saw is started?                             | 0                  | 0     | 5                 | 5     | 5                 | 5     |
| 184. Start saw?  | 0                  | 0     | 5                 | 5     | 5                 | 5     |
| 185. Saw on line?  | 0                  | 0     | 4                 | 5     | 5                 | 5     |
| 186. Place wood in vise?                                       | 0                  | 0     | 4                 | 5     | 5                 | 5     |
| 187. Fasten vise?  | 0                  | 0     | 3                 | 5     | 3                 | 4     |
| 188. Make hole with brace and bit after it has been started?   | 0                  | 0     | 2                 | 5     | 5                 | 3     |
| 189. Start hole with brace and bit?                            | 0                  | 0     | 4                 | 5     | 5                 | 3     |
| 190. Complete hole with brace and bit?                         | 0                  | 0     | 2                 | 5     | 5                 | 3     |
| 191. Remove the bit from the hole?                             | 0                  | 0     | 5                 | 5     | 5                 | 3     |
| 192. Weave on loom or card?                                    | 0                  | 0     | 3                 | 5     | 4                 | 3     |
| 193. Keep needle threaded?                                     | 0                  | 0     | 2                 | 5     | 4                 | 3     |

TABLE VIII (continued)

| Motor Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 194. Thread a needle?   | 1               | 0     | 0              | 5     | 4              | 5     |
| 195. Make large stitches,-a half inch or more?                        | 1               | 0     | 2              | 5     | 5              | 5     |
| 196. Make small stitches?   | 1               | 0     | 1              | 5     | 5              | 5     |
| 197. Make stitches that will hold?                                    | 1               | 0     | 2              | 5     | 5              | 5     |
| 198. Make stitches without catching cloth in loop of the thread?      | 1               | 0     | 1              | 5     | 5              | 5     |
| 199. Sew on a button?   | 1               | 0     | 2              | 5     | 5              | 5     |
| 200. Wash dishes?   | 1               | 0     | 1              | 5     | 4              | 5     |
| 201. Use broom?   | 1               | 0     | 1              | 5     | 3              | 5     |
| 202. Hold dustpan and sweep into it?                                  | 5               | 5     | 5              | 5     | 5              | 5     |
| 203. Use a mop?   | 0               | 0     | 3              | 5     | 5              | 5     |
| 204. Use a dustcloth?   | 0               | 0     | 4              | 5     | 5              | 5     |
| 205. Wipe furniture or floor after any liquid has been spilled?       | 5               | 4     | 5              | 5     | 4              | 5     |
| 206. Carry a child's chair or other object of similar size or weight? | 5               | 5     | 5              | 5     | 5              | 5     |
| 207. Carry a large block without bumping other children?              | 3               | 4     | 5              | 5     | 5              | 5     |
| 208. Carry several boards or Hill blocks at one time?                 | 0               | 0     | 4              | 5     | 5              | 5     |
| 209. Lift any object weighing more than four pounds?                  | 5               | 5     | 5              | 5     | 5              | 5     |
| 210. Lift any object weighing about four pounds?                      | 5               | 5     | 5              | 5     | 5              | 5     |
| 211. Open any door with both hands?                                   | 5               | 5     | 5              | 5     | 4              | 5     |
| 212. Open any door with one hands?                                    | 5               | 4     | 5              | 5     | 5              | 5     |
| 213. Close the door?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 214. Close the door using the Knob?                                   | 5               | 5     | 5              | 5     | 5              | 5     |
| 215. Close any door without making unnecessary noise?                 | 3               | 1     | 3              | 5     | 3              | 4     |
| 216. Fold a doll cover, rug?  | 3               | 1     | 4              | 5     | 4              | 5     |
| 217. Fold a doll cover, rug, etc., neatly?                            | 2               | 0     | 4              | 5     | 4              | 5     |

TABLE VIII (continued)

| Motor Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 218. Turn one page of a book at a time without bedding corners? | 5               | 5     | 5              | 5     | 5              | 5     |
| 219. Print or write any letters?                                | 0               | 0     | 5              | 3     | 5              | 5     |
| 220. Use right hand?  | 5               | 5     | 5              | 4     | 5              | 5     |
| 221. Use left hand?   | 0               | 0     | 1              | 1     | 0              | 0     |
| 222. Get on toilet without help when buttons are unfastened?    | 5               | 5     | 5              | 5     | 5              | 5     |
| 223. Use toilet without wetting clothes?                        | 5               | 5     | 5              | 5     | 5              | 5     |
| 224. Use paper at toilet?                                       | 5               | 4     | 3              | 1     | 3              | 2     |
| 225. Get off toilet without help?                               | 5               | 5     | 5              | 5     | 5              | 5     |
| 226. Flush toilet?  | 4               | 3     | 1              | 0     | 2              | 2     |
| 227. Readjust clothing after using toilet?                      | 5               | 5     | 5              | 5     | 5              | 5     |
| 228. Turn water on?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 229. Turn water off?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 230. Put stopper in the basin?                                  | 5               | 5     | 5              | 5     | 5              | 5     |
| 231. Take stopper out of the basin?                             | 5               | 5     | 5              | 5     | 5              | 5     |
| 232. Get soap from container?                                   | 5               | 5     | 5              | 5     | 5              | 5     |
| 233. Soap his hands?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 234. Soap his hands?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 235. Wash both hands with each other?                           | 5               | 5     | 5              | 5     | 5              | 5     |
| 236. Rinse the palms of his hands?                              | 5               | 5     | 5              | 5     | 5              | 5     |
| 237. Rinse the back of the hands?                               | 5               | 5     | 5              | 5     | 5              | 5     |
| 238. Take towel or washcloth off hook?                          | 5               | 5     | 5              | 5     | 5              | 5     |
| 239. Wring out washcloth?                                       | 5               | 2     | 5              | 5     | 5              | 5     |
| 240. Wash his face with help?                                   | 1               | 2     | 0              | 0     | 3              | 1     |
| 241. Wash his face without help?                                | 4               | 5     | 5              | 5     | 5              | 4     |
| 242. Dry his face with help?                                    | 0               | 1     | 0              | 0     | 1              | 1     |
| 243. Dry his face without help?                                 | 5               | 5     | 5              | 5     | 5              | 2     |
| 244. Dry his hands with help?                                   | 0               | 1     | 0              | 0     | 0              | 0     |
| 245. Dry his hands without help?                                | 5               | 5     | 5              | 5     | 5              | 5     |
| 246. Hang up washcloth or towel?                                | 4               | 4     | 5              | 5     | 5              | 5     |
| 247. Comb his hair with help?                                   | 3               | 3     | 4              | 2     | 4              | 4     |
| 248. Comb his hair without help?                                | 1               | 2     | 3              | 2     | 3              | 2     |



TABLE VIII(continued)

| Motor Habits   | Three-Year<br>Olds |       | Four-Year<br>Olds |       | Five-Year<br>Olds |       |
|--|--------------------|-------|-------------------|-------|-------------------|-------|
|  | Boys               | Girls | Boys              | Girls | Boys              | Girls |
| 249. Suck his toothbrush?  | 0                  | 0     | 0                 | 0     | 1                 | 1     |
| 250. Brush his teeth with help?                                    | 2                  | 0     | 1                 | 1     | 2                 | 2     |
| 251. Brush his teeth without help?                                 | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 252. Wipe his nose?  | 5                  | 4     | 5                 | 5     | 4                 | 5     |
| 253. Blow his nose?  | 5                  | 4     | 5                 | 5     | 5                 | 5     |
| 254. Control elimination?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 255. Sit down at table without bumping it?                         | 5                  | 5     | 4                 | 5     | 3                 | 4     |
| 256. Sit well back in chair?                                       | 4                  | 3     | 4                 | 3     | 4                 | 3     |
| 257. Hold spoon grasped in fist?                                   | 5                  | 4     | 1                 | 3     | 1                 | 2     |
| 258. Hold spoon correctly?   | 1                  | 2     | 4                 | 4     | 5                 | 5     |
| 259. Carry food on spoon from dish to mouth without dropping?      | 2                  | 4     | 4                 | 2     | 5                 | 4     |
| 260. Hold fork grasped in fist?                                    | 4                  | 3     | 1                 | 2     | 1                 | 2     |
| 261. Hold fork correctly?  | 1                  | 2     | 5                 | 3     | 5                 | 5     |
| 262. Carry food on fork from dish to mouth without dropping?       | 2                  | 3     | 4                 | 4     | 5                 | 4     |
| 263. Take up food on spoon?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 264. Take up food on spoon without using fingers, bread, or toast? | 5                  | 5     | 4                 | 3     | 5                 | 5     |
| 265. Take up food on fork?   | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 266. Take up food on fork without using fingers, -bread or toast?  | 4                  | 3     | 2                 | 4     | 5                 | 4     |
| 267. Bite hard toast?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 268. Chew his food?  | 5                  | 5     | 5                 | 5     | 5                 | 5     |
| 269. Take small mouthfuls?   | 4                  | 5     | 3                 | 5     | 2                 | 4     |
| 270. Take small sips of milk, orange juice or other liquid?        | 2                  | 4     | 3                 | 5     | 3                 | 4     |
| 271. Grasp cup with two hands?                                     | 5                  | 5     | 4                 | 5     | 4                 | 5     |
| 272. Hold cup by handle and support with other hand?               | 3                  | 2     | 5                 | 5     | 4                 | 5     |
| 273. Hold cup with one hand?                                       | 3                  | 0     | 2                 | 4     | 3                 | 5     |
| 274. Hold cup, drink without spilling liquid?                      | 3                  | 5     | 5                 | 5     | 5                 | 5     |

TABLE VIII (continued)

| Motor Habits   | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|--|-----------------|-------|----------------|-------|----------------|-------|
|  | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 275. Remove tops of bottles after they have been loosened? | 4               | 4     | 5              | 5     | 5              | 5     |
| 276. Use straw without flattening or bending?              | 5               | 5     | 5              | 5     | 5              | 5     |
| 277. Carry dishes of food without spilling?                | 4               | 5     | 5              | 5     | 5              | 5     |
| 278. Pour liquid from pitcher without spilling?            | 5               | 5     | 5              | 5     | 4              | 4     |
| 279. Carry liquid without spilling?                        | 5               | 5     | 5              | 5     | 4              | 5     |
| 280. Empty pan without spilling water?                     | 5               | 5     | 5              | 5     | 5              | 5     |

TABLE VII(continued)

| Social and Moral Habits   | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| Does the child  |                 |       |                |       |                |       |
| 1. Show interest in only one child?   |                 |       | 2              |       |                |       |
| 2. Show interest in children in a group?  | 3               | 3     | 3              | 5     | 5              | 5     |
| 3. Play with any child without preference?                                      | 3               | 2     | 2              | 2     | 5              | 3     |
| 4. Play with a group, e.g., with several children?                              | 3               | 2     | 3              | 5     | 5              | 4     |
| 5. Cooperate with other children e.g., follow another child's leadership?       | 4               | 5     | 3              | 4     | 5              | 4     |
| 6. Share materials or playthings with any child?                                | 2               | 3     | 3              | 2     | 4              | 5     |
| 7. Seem acceptable to group as leader, e.g., do other children follow his lead? | 1               | 5     | 0              | 1     | 2              | 1     |
| 8. Show friendliness toward one member of staff?                                | 1               | 4     | 0              | 1     | 2              | 1     |
| 9. Show friendliness toward all members of the staff?                           | 3               | 4     | 4              | 3     | 5              | 4     |
| 10. Show friendliness toward adult visitors?                                    | 3               | 5     | 3              | 3     | 4              | 3     |
| 11. Show friendliness toward a new child?                                       | 1               | 5     | 3              | 4     | 4              | 4     |
| 12. Try to make a new child one of the group?                                   | 0               | 4     | 3              | 3     | 4              | 4     |
| 13. Help any child?   | 2               | 5     | 4              | 3     | 4              | 4     |
| 14. Participate in conversation?  | 4               | 5     | 4              | 5     | 5              | 5     |
| 15. Contribute suggestions in group discussions?                                | 4               | 5     | 5              | 5     | 4              | 5     |
| 16. Come promptly to group discussions, e.g., not keep group waiting?           | 5               | 4     | 4              | 4     | 5              | 5     |
| 17. Take part in group problems?  | 3               | 4     | 3              | 5     | 5              | 5     |
| 18. Obey promptly?  | 4               | 4     | 3              | 3     | 5              | 2     |
| 19. Listen attentively?   | 5               | 5     | 4              | 5     | 4              | 4     |
| 20. Show sympathy for a child in trouble, e.g., comfort a child who is hurt?    | 5               | 5     | 4              | 4     | 5              | 4     |

TABLE VIII(continued)

| Social and Moral Habits  | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|--|-----------------|-------|----------------|-------|----------------|-------|
|  | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 21. Show sympathy for any adult?   | 4               | 3     | 3              | 4     | 5              | 4     |
| 22. Attempt to wash himself?   | 5               | 5     | 5              | 5     | 5              | 5     |
| 23. Show willingness to receive help when it is needed in washing?               | 4               | 5     | 5              | 5     | 5              | 5     |
| 24. Wash himself without help?   | 5               | 4     | 5              | 5     | 5              | 5     |
| 25. Attempt to dress himself?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 26. Show willingness to receive help when it is needed in dressing?              | 5               | 5     | 5              | 5     | 5              | 5     |
| 28. Dress himself without help?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 29. Show willingness to receive help when it is needed in eating?                | 5               | 5     | 5              | 5     | 5              | 5     |
| 30. Feed himself without help?   | 5               | 0     | 5              | 5     | 5              | 5     |
| 31. Show willingness to receive help when it is needed in any other situation?   | 4               | 4     | 5              | 5     | 5              | 5     |
| 32. Ask for help in any activity?  | 2               | 2     | 3              | 4     | 2              | 1     |
| 33. Carry on activity without frequent attention from adults?                    | 4               | 5     | 4              | 5     | 4              | 4     |
| 34. Imitate others in choice of toy or activity?                                 | 5               | 5     | 5              | 5     | 5              | 5     |
| 35. Imitate words or perform the same actions as another child?                  | 5               | 5     | 5              | 5     | 5              | 5     |
| 36. Appear to be imitated?   | 5               | 4     | 4              | 5     | 3              | 3     |
| 37. Initiate an activity?  | 5               | 5     | 5              | 3     | 5              | 3     |
| 38. Await his turn willingly?  | 3               | 5     | 4              | 3     | 5              | 5     |
| 39. Get and give toy to another child?   | 0               | 3     | 4              | 3     | 5              | 4     |
| 40. Give up toy to another child willingly?                                      | 3               | 5     | 5              | 2     | 5              | 5     |
| 41. Recognize the rights of others, e.g., priority of claim on playthings?       | 3               | 5     | 4              | 3     | 5              | 5     |
| 42. Exercise self-control when crossed, e.g., not hit when playthings are taken? | 3               | 5     | 4              | 2     | 4              | 4     |
| 43. Take interference by children good-naturedly?                                | 3               | 5     | 2              | 2     | 4              | 4     |
| 44. Show a sense of fairness?  | 2               | 5     | 3              | 2     | 4              | 4     |

TABLE VIII(continued)

| Social and Moral Habits   | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 45. Assume responsibility as a member of a group?                                       | 2               | 1     | 1              | 3     | 5              | 5     |
| 46. Assume responsibility for his own conduct, e.g., tend to wait on himself?           | 3               | 3     | 5              | 4     | 5              | 4     |
| 47. Assume group customs and courtesies, e.g., greet the teacher?                       | 1               | 2     | 3              | 1     | 2              | 5     |
| 48. Voluntarily say "please" to teacher or children?                                    | 0               | 0     | 1              | 2     | 0              | 2     |
| 49. Voluntarily say "thank you" to teacher or children?                                 | 0               | 0     | 1              | 2     | 0              | 2     |
| 50. Hold gate or door open for others?  | 0               | 0     | 0              | 0     | 0              | 1     |
| 51. Place hand over mouth when yawning, coughing?                                       | 4               | 5     | 5              | 4     | 5              | 2     |
| 52. Keep place at table clear of crumbs?  | 0               | 2     | 2              | 1     | 3              | 5     |
| 53. Wait until all are served before eating?  | 5               | 5     | 4              | 3     | 5              | 1     |
| 54. Hand things to others at table or elsewhere?  | 5               | 5     | 5              | 5     | 5              | 5     |
| 55. Respond when spoken to?   | 5               | 5     | 4              | 4     | 5              | 5     |
| 56. Accept punishment without resentment?   | 5               | 5     | 5              | 4     | 4              | 4     |
| 57. Show that he is affected by the approval or disapproval of teacher or other adults? | 3               | 2     | 3              | 3     | 5              | 4     |
| 58. Show that he is affected by the approval or disapproval of the group?               | 2               | 2     | 3              | 2     | 3              | 2     |
| 59. Show that he is affected by the approval or disapproval of a special child?         | 0               | 2     | 2              | 1     | 3              | 3     |
| 60. Take responsibility for others younger than himself?                                | 0               | 3     | 1              | 0     | 3              | 1     |
| 61. Take responsibility for others of his own age?                                      | 1               | 3     | 1              | 0     | 3              | 1     |
| 62. Bring in objects of interest to the group?  | 4               | 3     | 3              | 3     | 4              | 2     |

TABLE VIII (continued)

| Social and Moral Habits                                   | Three-Year Olds |       | Four-Year Olds |       | Five-Year Olds |       |
|---|-----------------|-------|----------------|-------|----------------|-------|
|   | Boys            | Girls | Boys           | Girls | Boys           | Girls |
| 63. Show generosity, e.g., not take the best for himself? | 1               | 3     | 2              | 0     | 4              | 3     |
| 64. Show preference for playing alone?                    | 2               | 2     | 2              | 2     | 1              | 2     |
| 65. Play with only one child?                             | 2               | 2     | 1              | 0     | 0              | 0     |
| 66. Seem to be unacceptable to group?                     | 0               | 1     | 2              | 1     | 1              | 1     |
| 67. Seem to excite group by his presence?                 | 0               | 1     | 0              | 1     | 0              | 2     |

## APPENDIX B

### PART OF A DIARY RECORD OF A THREE YEAR OLD GIRL

11:20 - Bathroom Time.-

B. picked up wash rag, put hands in water in basin, and said, "The water is not hot." B. put liquid soap on hands. Washed hands with rag. Pwring rag out with both hands, washed arms with rag. Poured water and rag in water trough. B. asked assistant teacher to move, so that she could reach paper towel. Wiped hands on paper towel and threw towel in paper container.

B. left bathroom to go to rest. B. stretched out on the mat, laid on left side, and looked at B. N. B. stood up. Selected another mat in second row but did not lie on it, because there was sand on it. (Teacher swept sand off of mat.) B. sat on side of mat, stood up, and moved to another mat. B. stretched out on mat and began talking to B. M. B. said, "You know what my mamma bought me? A big aeroplane. (She stretched her arms out wide.) Bar., turned on her stomach, turned on right side, turned on left side. Turned more than four times. Billie M. began imitating B. putting her feet high in air, down, up and down.

11:30

B. sat up, grabbed right foot, and brought it up over her head as she lay down. She sat up and said, "You've got some more beds, ain't you?" Bar. lay down, then sat up, and reared back on hands placed behind her. Raised her body up, down, up, and down. Made faces at child in front of her who looked at her. Barbara placed her hands behind her. Raised her body placed right hand under her head.

11:34

B. sat up. Teacher said, "This is your rest time." B. lay down. Teacher turned away. B. sat up. Teacher looked at Bar. B. lay down, while watching teacher. B. lay on left side, moved left leg, and brought right knee up. B. put her hands on her stomach and rubbed stomach. B. crossed her legs, uncrossed legs, put right hand on bare stomach, sat up and leaned back on hands. B. pulled her dress down, and patted her stomach more than four times. B. turned on right side, put both hands under head and drew foot up, flexing knees (slightly.) B. sat up, grabbed sides of mat, and looked around. B. lay down turned on left side. With both hands and arms under her body, B. turned on the right side and curled her body up bringing her knees near her mouth. B. played with her stomach and pushed at her navel.

11:40

B. sat up on left side of mat, patted right thigh, and raised left hand over her head. B. drew her knees close to her stomach. B. lay down and stretched both arms over her head. Turned on her back while right hand drew left foot backwards under her thigh. Drew right foot backwards under her thigh. B. played with her shoes while in this position. Turned on right side, face down on mat. Pushed finger in nostril. Sat up, she lay down. Teacher said, "It's lunch time." B. got up, walked down aisle between mats, and left room. B. ran through hall to dining room. B. put on her bib. (Teacher reminded her to pull the strings) B. was told to serve the dinner. B. brought plates of dinner and said to teacher, "Her don't say, 'Thank you!'" B. carried plates with both hands. B. rested her left hand on table and ate with fork in right hand. Put food in mouth without spilling any while gazing at the boys and girls passing her with plates of dinner. B. used her fingers to push the few remaining peas on fork, and sucked her fingers afterwards. B ate everything on her plate and said, "I'm through now." B. left table to get small pitcher of milk. B. poured milk in her cup. B. put her head down and slipped milk in her cup. B. put her head down and slipped milk from cup without lifting cup. Drank milk with loud, sucking noise, held cup, with both hands, then put one hand on arm of chair. B. put cup down. B. broke off a piece of cake and put it in her mouth. B. picked up cup of milk with both hands, then put one hand on arm of chair. B. picked up cup of milk with both hands. B. broke off a piece of cake and put it in her mouth. B. drank more milk. When she had finished the first cup, B. asked for more milk, reached for pitcher, and poured another cup of milk. Put head down to cup to sip. Picked up cup when it was three-fourths full, using both hands. When cup was nearly empty B. used one hand to hold cup.

12:12

Put empty cup on plate. Moved both to pans. Removed teacher's plate, silver, and glass to pans. Brought teacher's ice cream, held cup with one hand. Returned to serving table for another cup of ice cream. Held it above her head and asked, "Whose is this?" Sat down at table to eat her own ice cream. Tilted cup so that she could get all of it with her spoon; failing that, B. drank last drops of ice cream and said, "Ah!"

12:20

Put cup in dish pan. Returned to table. Pushed chair under table. Stood besides Ruby, smoothing her hair down several times.



PART OF A DIARY RECORD FOR A FOUR YEAR OLD BOY

9:00

Sidney knelt near Frank, Charles, and Ralph. They built a house. Sidney said: "Here Frank". He put in a board. He put on another board. Ralph: "There's something to eat in there. Frank: "Just look what you did." (A board fell down) Sidney: "I didn't do it." Frank: "Don't bother the hammer, boy." Ralph: "I'm going to fix it". Frank took it to Miss Menafee. Charles: "I lost my knife." Frank: "Who had it?" Charles: "Somebody, I don't know. That knife costs nine cents. You will have to pay for that knife." Sidney: "Don't do that Ralph. You stepped on my hand." "Here Frank". He gave Charles' knife to Frank. Charles: "Cut her." He pointed to Iona. She went over to the teacher's side.

Frank walked over and pretended to cut off her neck. Frank returned to pile of blocks and gave knife to Ralph.

Ralph: "Here".  
Frank: "I don't like that kind."  
Ralph: "Here, Frank".  
Sidney: "Ralph, you want to put a door right there."

Charles knelt, looking on. Frank brought more blocks out.

Ralph: "Put one on the back".  
Sidney: "Here, put one right here."  
Ralph: "No," Frank: "These are the bricks." "We are putting bricks up, ain't we?"  
Sidney: "That's a pretty little house on this porch. Isn't it?" He sat back looking at house. Charles stood off looking. Frank kept putting things on. Ralph worked on the porch.  
Charles: "We've got a dollar's worth." (Saws.) He slipped down, got up, and laughed. Sidney tried to push a board into back of house.  
Frank: "When you drink that whiskey you get sick." Charles sat off looking.  
Frank: "This is a whiskey house."  
Ralph: "Don't whiskey houses have something on there?" (top of house Sidney pushed some boards. Frank objected and frowned.  
Charles: "Can't I go get me some water?" We won't let anybody steal our things."

Frank went over to stool returned and said "Train man is coming to get drunk."

Sidney: "I'm going to sleep now."

Frank: "You going to sleep on the front porch?"

Sidney: "We've got a front porch to sleep on."

Charles laughed out loud.

Frank: "You get up from there Bo." (to Sidney) Frank threw some boards near house. Board fell from house.

Sidney: "Who did that?" He pointed to Charles.

Frank threw some more boards, and another board fell from house.

Frank told Sidney: "You can't play with us any more."

Sidney: "I am. I'm going to knock it down again, I'll knock it down and put it up again."

Charles began stringing beads.

9:45

Frank: "The groundhog's coming out of the ground."

Sidney: "He'll eat up some body?"

Ralph: "He doesn't come to school."

Ralph: "He comes out of the ground. Doesn't he? Look what Charles did."

9:47

Charles: "I ain't done that. I ain't done it."

Miss Menefee: "It's time to put the blocks away."

Charles: "Miss Menafee, I didn't take them down, I don't want to do it."

Sidney began placing blocks on shelf in an orderly manner.

Charles put his head down on porch.

Frank: "If you lay down again I'm going to hurt you. Look at my load."

Sidney: "I'm going to stack up my load too."

Frank: "Who took my load?" Charles began helping.

Frank: "Come here, Ralph."

Ralph: "I can't now."

Frank: "Look at my load. Look at my load, Charles."

Charles: "Yeah, Lord,"

Ralph: "Look, Miss Menafee." He was placing boards on shelf. Charles went over to train. He repeated, "I don't want to help". He picked up a saw.

Ralph: "We are piling them up."

Frank: "We ain't going to sit up here."

Sidney: "No."

Frank: "I'm talking to Ralph. Don't get into our business."

Sidney: "Excuse me, Ralph."

Frank: "What am you doing?"

Sidney: "Don't that look nice? They stacked blocks up.  
Charles frowned and said, "No" to Sidney. Charles continued stacking blocks.

Frank: "That goes right there."

Ralph: Went off to trains to get some blocks out of cars.

Teacher reminded Frank to get through.

Ralph returned to shelf with remaining blocks.

Charles, Ralph, Sidney and Frank moved the train. Charles pointed to shelf and said, "Look, Miss Menafee." She said, "That looks very, very nice".

Charles: "I'll make the elephant bite you." (He spoke to Sidney) Sidney picked up the round flat blocks that belong on the stick.

PART OF A DIARY RECORD FOR A FIVE YEAR OLD BOY

9:30

Brianard and Harold played fighting with guns.

Harold: "I buy me an airplane. I buy me a train. I buy me anything."

Brainard said, "I'm beating old Harold." They put away the blocks.

Brainard said, "Come on Harold, I've got one." (He meant a story book).

Harold: "I'm looking for my handkerchief." Brainard watched Harold. Brainard said, "This is a story about three little pigs. The pig had the wolf for his dinner," he remarked.

"The boys are over here. Miss Menchan, why don't you let the boys sit over here and the girls sit over there to drink their milk?" Harold said to Brainard, "I saw 'Mutiny on the Bounty' I saw it at the Royal. It's going to be at the Ashby. I saw a man, a captain."

Brainard said, "Look at that little squirrel". (He called a dog a squirrel.) That's a little cat. Dog's going to see kitty, Miss Menchan, read me this book."

9:55

Harold and Brainard listened to Miss Menchan tell about each picture and what the different animals were: dog, cat, frog ducks, chickens, biddies, roosters.

10:00

Brainard said, "I've got a little brush. You've got a big brush."

Harold: "I wonder when Betty is coming back. I guess she's coming back in the spring."

Harold: "I saw a man." Brainard said, "Miss Menchan, Harold's talking to you. I'm making a car. He said, "The smoke was coming out. That's the driver. That's a little truck. He looked at the last piece of paper and said, "I don't want to take that piece."

Bathroom Time:

Brainard washed his hands. He asked, "Miss Menchan, what are we going to do?" Miss Menchan told Brainard to get the cups. He asked, "Where am I going to get them? (meaning the cups for lunch)


Harold said that he washed his hands in cold water. Brainard said, "I did too."

Brainard laughed and the milk flew out of his mouth on the table. He said, "I'll wipe it up." He held his cup with his right hand. He ate his cracker slowly. There were crumbs on the table in front of him. "What kind of shirt have you got on? You haven't one like this." (He pulled up left sweater sleeve to show Harold. Brainard said, "I know a good old story. Who is going to be first one today? Once upon a time there was an old lady. She lived in an old house too. She wanted something to eat. She went to the duck. She went to the dog. The old woman said, "You've got some apples?" The dog said, "Yes, take some." Get out." She took 1, 2, 3, 4. Each one was rotten. She went to the napkins. That's where she got one that was good."

Brainard tried to fasten buckle on Laura's slipper. He crossed his left foot over the right one.

Laura crossed her feet. Brainard held up his right knee with both hands. Laura said that she didn't know any story. She told "Little Red Riding Hood" but spoke too low for children to hear her.

Brainard played with Harold. Miss Menchan changed Brainard's seat, Brainard played with Ralph. He said, "I've got a skate too."



# APPENDIX C

## PART OF A SCORE SHEET - Emotional Habits

Maximum Score - 621

|        |        |        |        |         |               |
|--------|--------|--------|--------|---------|---------------|
| 1....  | 25.... | 49.... | 73.... | 97....  | 121....       |
| 2....  | 26.... | 50.... | 74.... | 98....  | 122....       |
| 3....  | 27.... | 51.... | 75.... | 99....  | 123....       |
| 4....  | 28.... | 52.... | 76.... | 100.... | 124....       |
| 5....  | 29.... | 53.... | 77.... | 101.... | 125....       |
| 6....  | 30.... | 54.... | 78.... | 102.... | 126....       |
| 7....  | 31.... | 55.... | 79.... | 103.... | 127....       |
| 8....  | 32.... | 56.... | 80.... | 104.... | 128....       |
| 9....  | 33.... | 57.... | 81.... | 105.... | 129....       |
| 10.... | 34.... | 58.... | 82.... | 106.... | 130....       |
| 11.... | 35.... | 59.... | 83.... | 107.... | 131....       |
| 12.... | 36.... | 60.... | 84.... | 108.... | 132....       |
| 13.... | 37.... | 61.... | 85.... | 109.... | 133....       |
| 14.... | 38.... | 62.... | 86.... | 110.... | 134....       |
| 15.... | 39.... | 63.... | 87.... | 111.... | 135....       |
| 16.... | 40.... | 64.... | 88.... | 112.... | 136....       |
| 17.... | 41.... | 65.... | 89.... | 113.... | 137....       |
| 18.... | 42.... | 66.... | 90.... | 114.... | 138....       |
| 19.... | 43.... | 67.... | 91.... | 115.... | 139....       |
| 20.... | 44.... | 68.... | 92.... | 116.... | 140....       |
| 21.... | 45.... | 69.... | 93.... | 117.... | 141 to 207    |
| 22.... | 46.... | 70.... | 94.... | 118.... | Total         |
| 23.... | 47.... | 71.... | 95.... | 119.... | Entire Total. |
| 24.... | 48.... | 72.... | 96.... | 120.... | Total X's X 3 |
|        |        |        |        |         | Final Score.. |
| Total  | Total  | Total  | Total  | Total   |               |

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